

CONSUMPTIVE USE AND CONSUMPTIVE IRRIGATION REQUIREMENTS IN WYOMING

by

**Larry Pochop, Travis Teegarden, Greg Kerr,
Ronald Delaney and Victor Hasfurther**

ABSTRACT

Monthly and seasonal estimates of consumptive use and consumptive irrigation requirements for crops and turf in Wyoming are given at each of 67 locations. Mean, maximum and minimum estimates are given for consumptive use and consumptive irrigation requirements as well as for grass reference evapotranspiration.

Contents of this publication have been reviewed only for editorial and grammatical correctness, not for technical accuracy. The material presented herein resulted from research sponsored by the Wyoming Water Resources Center, however views presented reflect neither a consensus of opinion nor the views and policies of the Wyoming Water Resources Center, or the University of Wyoming. Explicit findings and implicit interpretations of this document are the sole responsibility of the author(s).

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Wyoming Water Resources Center
P.O. Box 3067, University Station
Laramie, Wyoming 82071-3067
(307) 766-2143

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The methodologies used in calculating the estimates given in this document are explained in a separate publication by Teegarden (1992). The methods are explained in detail by Teegarden, except that the information he gives concerning growing seasons and crop coefficients are examples only. Therefore, this document contains more detailed information on the growing seasons and crop coefficients, used for calculation of the consumptive use and consumptive irrigation requirement estimates, than on the other methodologies used.

The calculations contained herein are based upon climatic, evapotranspiration, and crop data collected in Wyoming and the surrounding region over a long period of time. Without this field data, this document could not have been prepared. Some of those who have been instrumental in collecting the data used herein include all the cooperators of the National Weather Service Cooperative Station Network with respect to the climatic data; Robert Burman, John Borrelli, John Barnes, Patrick O'Neill, Tom Crump, Joan Schumaker, Del Baird, Angela Vassar, and Mike Ebsen with respect to the evapotranspiration data; and all personnel contributing to the Wyoming Agricultural Statistics publications with respect to cropping information. Special appreciation is extended to Robert Burman and John Borrelli for sharing the efforts in conducting and directing most of the consumptive use studies performed in Wyoming. Many long and productive days and weeks have been spent with these co-workers, both in the field collecting consumptive use and related climatic data and in the office analyzing the field data. We are grateful to the agencies which provided funding to support consumptive use studies. Appreciation is extended to Barry Lawrence, Kenneth Carnes, and Catherine Voigtsberger at the WWRC for providing the climatic data from WRDS in a readily usable format, to Richard Marston for a review of the methodology used in preparing the estimates in this document, and to K. James Fornstrom for providing sample data of crop water use for verification of final estimates.

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INTRODUCTION

The primary objective of this document is to provide up-to-date estimates of means and probabilities of crop consumptive use and consumptive irrigation requirements in Wyoming. The last publication on statewide estimates of consumptive use of irrigation water in Wyoming was in 1970 (Trelease et al., 1970). Extensive research, both in Wyoming and the surrounding region, has provided much additional information on crop water use since 1970.

Details of the methodologies used in calculating the estimates are not given herein but are explained in a separate publication by Teegarden (1992). Discussion in this document is limited to that necessary for the proper understanding and interpretation of the information presented.

DEFINITION OF TERMS

Evapotranspiration (ET) is the combination of evaporation from the soil and plant surfaces and transpiration from plants. The term consumptive use is used interchangeably with ET, however, consumptive use also includes the water used by plants for the production of physical plant matter. Since the water used for production of plant matter is relatively small, ET and consumptive use are essentially the same. (Note: The consumptive use of a specified well-watered crop is referred to herein as the crop consumptive use requirement, CU.)

Reference Crop Evapotranspiration (ET_r) is the evapotranspiration from a given well-watered crop selected for comparative purposes under given weather conditions and with adequate fetch. The crop type can vary but is usually clipped grass or alfalfa. In theory, any plant or reference such as pan evaporation or any equation estimate may be used. The reference crop ET used throughout this document is grass reference ET and is defined as the rate of evapotranspiration from an extensive surface of 3 to 6 inches tall green grass of uniform height, actively growing in an open area, completely shading the ground, and not short of water (Doorenbos and Pruitt, 1977). The grass type is not defined, but a cool season grass such as alta fescue is assumed.

Crop Coefficient (K_c) is the ratio between crop ET and reference crop ET when the crop is grown in large fields under optimum well-watered growing conditions. Crop ET refers to the rate of ET from a specified well-watered crop from time of planting to harvest of annual crops or from the development of perennial crops in the spring until harvest or until fall, including the effects of cutting on forage crops like alfalfa and grass. The magnitude of crop coefficients are dependent upon the reference crop, with grass reference used in this document. Crop coefficients are also referred to as consumptive use coefficients.

Crop coefficients used in this document are "mean" crop coefficients accounting for typical irrigation practices, including regular wetting of the soil surface. When soil water is not optimum for the crop, or when soil water begins to limit ET, the mean crop coefficients must be reduced in estimating crop

ET which will be less than maximum crop ET. The levels of soil water depletion at which reduction of water use begins to occur for various crops, soils, climatic conditions, and other factors affecting water use are not well defined.

Crop Consumptive Use Requirement (CU or ET_{crop}) is the water use of any specified well-watered crop under optimum growing conditions. CU is determined by multiplying ET_r by the appropriate K_c values. Crop consumptive use is usually considered the maximum water use of a crop for the given conditions. However, a crop with access to a high water table will generally use water at a rate greater than if the water table were not present. In this document the consumptive use estimates for mountain meadows assume the presence of a high water table. Estimates for all other crops assume well-watered conditions but no water table. As mentioned above, when soil water is limited, crop water use is less than that defined as crop consumptive use.

Effective Precipitation. The commonly recognized definition, which is most suitable for irrigation scheduling purposes, is that effective precipitation is that part of the total rainfall during the growing season which is available to meet the consumptive water requirements of a crop (Dastane, 1974). However, for water right transfers, another definition must be applied. In the case of water transfers and water right issues, effective rainfall is the total amount of rainfall that falls on an area which supplements the consumptive irrigation requirements of a crop and produces additional water as runoff and/or deep percolation. The latter definition will be used throughout this document. Thus, for the purposes of on-farm irrigation management, individual irrigation adjustments will need to be made to account for runoff and deep percolation that occur from high intensity rainfalls. Various methods are available for estimating effective precipitation for irrigation management (e.g., Jensen et al., 1990), however, their accuracy and reliability are questionable.

Consumptive Irrigation Requirement (CIR) is the consumptive use requirement of a crop minus precipitation. Note that in this document all precipitation is considered effective. Therefore $CIR = CU - \text{Precipitation}$. However, CIR estimates for those crops having growing seasons beginning or ending on dates other than the first of a month were calculated using precipitation for the entire month even though consumptive use estimates were only for partial months. That is, precipitation was considered on a monthly basis. Also, any excess precipitation during a given month was not carried over to the next month.

CLIMATIC DATA AND SITE SELECTIONS

A major factor in selecting sites for ET estimates is the availability of climatic data. Local temperature and precipitation data are available at over 100 National Weather Service cooperative stations (second order stations) in Wyoming. Additional climatic data--such as sky cover, percent sunshine, humidity, and wind speed--are generally available at the four first order National Weather Service stations of Cheyenne, Lander, Casper, and Sheridan. The three first order stations of Billings, Rapid City, and Scottsbluff are located near Wyoming and have climatic conditions representative of adjacent areas in Wyoming.

Analyses suggested that air temperature and wind velocity variations need to be accounted for by using local temperature data and by adjusting wind speeds

from one location to another within a region prior to reference ET calculations. The use of constant region-wide values of dew point temperature and solar radiation from the first order stations provides adequate estimates of those parameters for an entire region.

By using wind data from first order stations and from research sites having short term records of wind along with isolines and areas of equal wind power from Martner (1986), Wyoming was divided into seven regions of similar wind conditions (Fig. 1). Within each region, wind adjustment coefficients were developed by comparing wind speeds at each of the second order stations where data existed to speeds at the first order stations (Table 1). Thus, monthly wind speeds for ET estimates at the second order stations were taken as the monthly wind speeds at the first order station within the region multiplied by the wind adjustment coefficient for the second order station. In most cases the wind adjustment coefficients were developed using isolines of equal wind power from Elliott (1980) to scale wind speeds up or down as compared to the speed at the first order stations. For locations where no wind speed data were available (e.g., Powell, Cody, and Lovell), the first order station wind speed data were used directly at the second order station. For most locations, the 40 year period of 1951 through 1990 was used in calculating CU and CIR estimates.

GROWING SEASONS

For seasonal consumptive use estimates, the length of time that water is used by various crops must be known. The growing season within Wyoming for some crops is fairly similar from one location to another, since these crops are limited to areas of similar elevation and climatic conditions. The growing season for other crops, e.g. forages, vary greatly throughout the State since the crops are grown at locations having considerable differences in elevation and climate.

Growing seasons for forages and lawn grass were defined as the period between the average date that the daily mean temperature reaches 40°F in the spring and the average date of the first 24°F or lower minimum temperature occurrence the fall (Table 2). This definition may best fit the growing season for alfalfa while the growing seasons for pasture grass, mountain meadows, and lawn grass may be slightly greater than that defined by the above criteria. However, any differences will cause only small differences in total water use because of the low rates of water use in early spring and late fall. The occurrences of the 40°F temperature in the spring were compiled from the Wyoming Climate Atlas (Martner, 1986), and the source of the average 24°F frost/freeze occurrences in the fall was the Probabilities of Freeze in Wyoming (Becker et al., 1977). The criteria for the start of the growing season is the same as that used in Wyoming Water Report No. 5 (Trelease et al., 1970). Since 1970, over 20 years of additional temperature data have become available and were used in this analysis. Therefore, starting dates in the spring may be different than those published by Trelease et al. (1970).

Since the purpose of this document is to provide estimates of CU and CIR over the water use period, estimates for the fall assume that water application continues after the last cutting--for example, for the development of pasture grass for winter feed. Individual farming practices need to be considered during the fall after the last cutting because in some locations and/or years water is not available late in the season or irrigation is simply discontinued, therefore, water use will be lower than for irrigated conditions. Adjustments may also need to be made in the spring if irrigation is not applied at the beginning of the growing season.

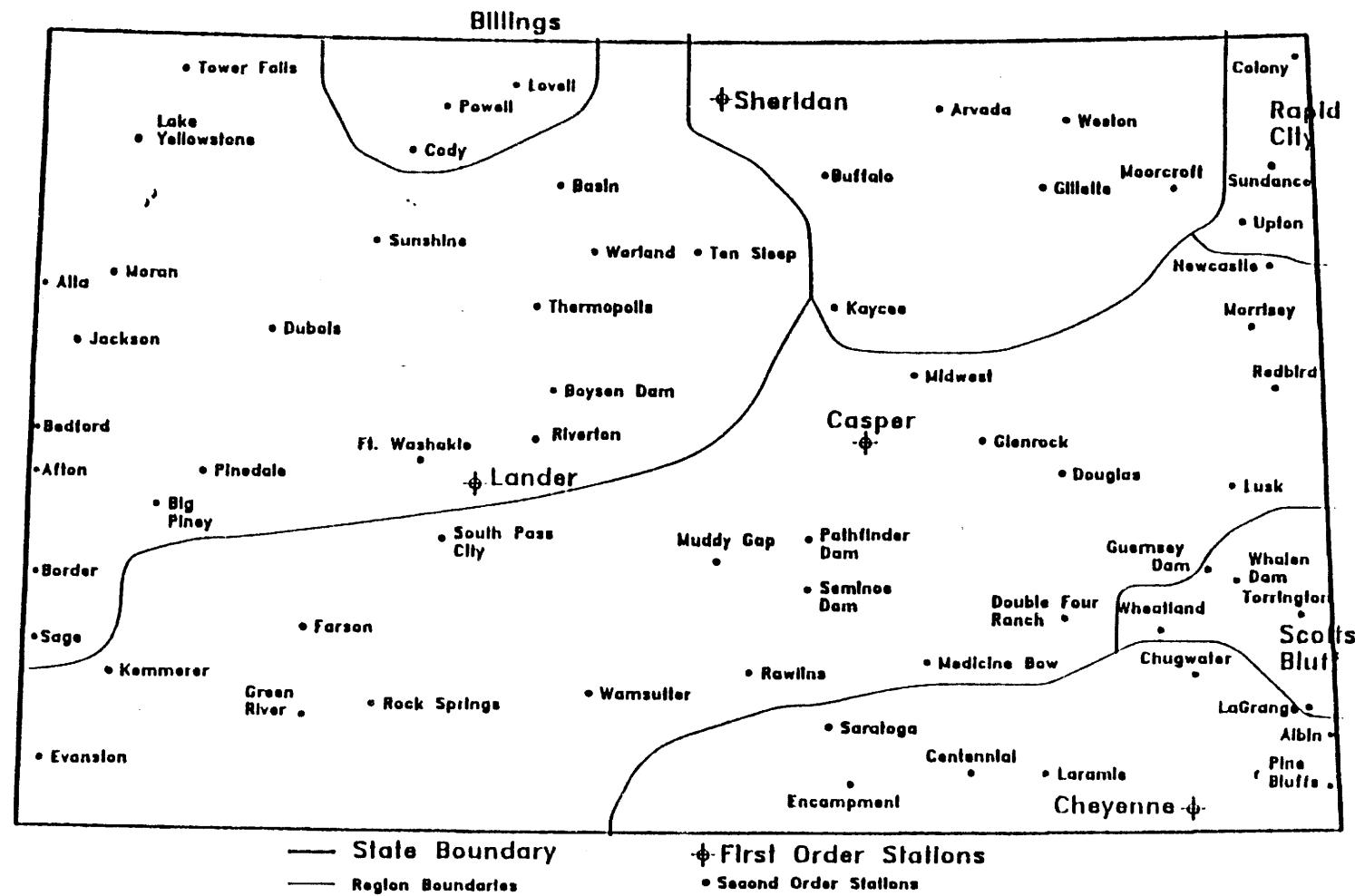


Figure 1. Map of Seven Regions and 67 Selected Sites.

Table 1. Adjustment Coefficients for Wind Speeds

Station	Elev (ft)	Wind Coef	Station	Elev (ft)	Wind Coef
<u>Billings</u>		--	<u>Lander</u>	5563	--
Cody	4990	1.00	Afton	6210	1.00
Lovell	3837	1.00	Alta	6430	1.00
Powell	4378	1.00	Basin	3837	1.00
<u>Casper</u>	5338	--	Bedford	6220	1.00
Double Four	6200	0.91	Big Piney	6820	0.91
Douglas	4800	0.96	Border	6120	1.00
Encampment	7360	1.10	Boysen Dam	4642	1.00
Evanston	6810	1.05	Dubois	6917	1.00
Farson	6595	0.76	Ft Washakie	5550	1.00
Glenrock	6430	0.97	Jackson	6230	1.00
Green River	6089	1.04	Lk Yellowstn	7762	1.00
Kemmerer	6936	0.75	Moran	6789	1.00
Lusk	5000	0.96	Pinedale	7175	0.90
Medicine Bow	6570	1.00	Riverton	4950	1.00
Midwest	4840	1.00	Sage	6250	1.00
Morrisey	4100	0.94	South Pass	7805	1.00
Muddy Gap J.	6311	0.95	Sunshine	6835	1.00
Pathfinder D.	5930	0.95	Ten Sleep	4680	1.00
Rawlins	6736	0.88	Thermopolis	5695	1.00
Redbird	3890	0.94	Tower Falls	6266	1.00
Rock Springs	6741	1.04	Worland	4172	1.00
Seminole Dam	6838	0.92	<u>Sheridan</u>	3964	--
Wamsutter	6795	0.95	Arvada	3685	1.20
<u>Cheyenne</u>	6126	--	Buffalo	4782	1.10
Albin	5345	0.97	Gillette	4556	1.60
Centennial	8140	1.05	Kaycee	4660	1.20
Chugwater	5282	1.00	Moorcroft	4260	1.22
Laramie	7266	1.01	Weston	3525	1.30
Pine Bluffs	5045	1.00	<u>Rapid City</u>		--
Saratoga	7070	1.13	Colony	3570	0.90
<u>Scottsbluff</u>		--	Newcastle	4315	0.95
LaGrange	4585	1.00	Sundance	4750	0.95
Torrington	4098	0.95	Upton	4261	0.95
Whalen Dam	4294	0.95			
Wheatland	4638	0.93			

Table 2. Average Growing Seasons for Forages and Lawn Grass

Station	Season	#Days	Station	Season	#Days
Afton	4/24-09/14	144	Lusk	4/06-10/07	185
Albin	4/04-10/11	191	Moorcroft	4/10-10/11	185
Alta	4/26-09/28	156	Medicine Bow	4/17-09/23	160
Arvada	4/02-10/08	190	Midwest	3/31-10/12	196
Basin	3/27-10/16	204	Moran	5/03-09-15	136
Bedford	4/25-09/14	143	Morrisey	4/01-10/20	203
Big Piney	4/30-09/17	141	Muddy Gap Jc.	4/12-10/08	180
Border	4/22-09/24	156	Newcastle	4/03-10/20	201
Boysen Dam	3/26-10/11	200	Pathfinder D.	4/11-10/15	188
Buffalo	4/06-10/14	192	Pine Bluffs	4/03-10/14	195
Casper	3/31-10/12	196	Pinedale	5/02-09/10	132
Centennial	4/27-10/02	159	Powell	3/29-10/19	205
Cheyenne	4/09-10/15	190	Rawlins	4/17-09/29	166
Chugwater	4/03-09/30	181	Redbird	3/31-10/07	191
Cody	4/05-10/12	191	Riverton	4/06-10/06	184
Colony	4/05-10/17	196	Rock Springs	4/16-10/09	177
Double Four R.	4/13-10/15	186	Sage	4/23-09/24	155
Douglas	4/08-10/10	186	Saratoga	4/15-10/01	170
Dubois	4/28-09/19	145	Seminole Dam	4/15-09/29	168
Encampment	4/18-10/02	168	Sheridan	4/05-10/14	190
Evanston	4/24-09/25	155	South Pass C.	5/05-09/03	122
Farson	4/22-09/17	149	Sundance	4/12-10/09	181
Ft. Washakie	4/13-10/13	184	Sunshine	4/24-10/12	172
Gillette	4/09-10/12	187	Ten Sleep	3/27-10/14	202
Glenrock	3/31-10/12	186	Thermopolis	3/28-10/11	198
Green River	4/12-10/04	175	Torrington	3/26-10/12	201
Jackson	4/24-09/08	139	Tower Falls	5/01-10/03	156
Kaycee	4/06-10/14	192	Upton	4/09-10/20	195
Kemmerer	4/24-09/24	154	Wamsutter	4/16-09/29	167
La Grange	3/31-10/11	195	Weston	4/03-10/12	193
Lk Yellowstn	5/19-10/03	138	Whalen Dam	3/30-10/15	200
Lander	4/08-10/13	188	Wheatland	3/27-10/15	203
Laramie	4/23-10/10	171	Worland	4/02-10-15	196
Lovell	4/02-10/15	197			

Start of spring season is the average mean occurrence of 40°F.

End of fall season is the average first occurrence of 24°F.

#Days is the average number of days in the growing season.

Data on the planting and harvest dates and growing season lengths for crops other than forages and lawn grass were obtained from the Wyoming Agricultural Statistics (1987, 1988, and 1989), FAO Paper #33 (Doorenbos and Kassam, 1979), Report Number 5 (Trelease et al., 1970), and Probabilities of Freeze in Wyoming (Becker et al., 1977). The average planting and harvest dates for crops grown in Wyoming are shown in Table 3. The average planting dates were used to define the beginning of the growing season for corn, dry beans, potatoes, and sugar beets--which are grown at lower elevation locations with relatively similar climatic conditions. September 15 was taken as the end of the growing season for both beans and potatoes. Although October 1 was determined as the average harvest date for potatoes, the September 1 date was considered more realistic for the end of the growing season--which is the same date as used in Report #5. For potatoes, there can be rather large differences in growing seasons due to variety differences. The end of the growing seasons for sugar beets and corn were taken as October 1 and October 4, respectively. The October 4 date is the average date of the first 28°F fall frost occurrence at the stations designated as growing these crops (Becker, et al., 1977). October 1 rather than October 4 was used for sugar beets because the average harvest date occurs somewhat earlier for sugar beets than for corn. Two growing seasons were defined for spring grains--April 15 through July 31 for the warmer season locations and May 1 through August 15 for the cooler season locations where spring grains are grown. The summer growing season for winter wheat was defined as either April 1 through July 31 or April 15 through August 15, depending on the relative climate at the various locations where winter wheat is grown.

Table 3. Average Planting and Harvest Dates

Crop	Planting Date	Harvest Date
Spring Grains*	Apr 28	Aug 14
Winter Wheat	Sep 7	Aug 1
Corn Silage	May 15	Sep 20
Corn Grain	May 15	Nov 1
Beans	Jun 1	Sep 15
Potatoes	May 20	Oct 1
Sugarbeets	Apr 24	Oct 15
Alfalfa:		
1st Cutting:	June 15	
2nd Cutting:	July 31	
3rd Cutting:	Sept 20	
Grass Hay:		
Usually 1 Cutting:	July 25	

Note: The dates shown above are statewide averages.

*Spring Grains include spring wheat, barley, & oats.

REFERENCE ET FORMULAS

Recent research updating methods and information for providing estimates of ET has emphasized the reference crop approach. Crop ET is estimated as

$$CU = K_c ET_r$$

For monthly estimates of CU, monthly ET_r is estimated using one of several available equations and then ET_r is multiplied by monthly crop coefficients, K_c . CU is for a well-watered crop under optimum growing conditions.

In the past, temperature methods have been widely used in the Western United States to estimate long-term mean ET. The availability of temperature data at many locations throughout the West, and the simplicity of the equations, encouraged the use of temperature methods. The Blaney-Criddle method of estimating ET was introduced during the late 1940's (Blaney and Criddle, 1950) and has seen widespread use for estimating long-term mean ET. The SCS (1967) modified the Blaney-Criddle formula, adding a climate coefficient to the original crop growth stage coefficient. However, the SCS version is still a single parameter temperature method. The temperature dependent Blaney-Criddle requires local calibration to provide accurate long-term mean ET estimates. However, even when locally calibrated, it generally cannot adequately account for spatial variability since it is a single parameter equation. Also, it will not account sufficiently for year-to-year variability in ET (Allen and Brockway, 1983).

With the development and common usage and availability of personal computers, the simplicity of use advantage of ET estimating equations is no longer a significant criteria. Even the availability of climatic data other than temperature is rapidly becoming less of an issue. Automated weather stations capable of recording all weather parameters have been available for several years. The development of the National Weather Service's Automated Surface Observing System will soon provide ready access to complete climatic data at numerous sites throughout the country.

The FAO-24 version of the Blaney-Criddle method represents a major modification of the Blaney-Criddle formula because climatic information in addition to air temperature data is included (Doorenbos and Pruitt, 1977). Doorenbos and Pruitt modified the original single parameter Blaney-Criddle method, which uses the temperature and day length related factor f ($f=tp/100$), by including general levels of humidity, sunshine, and wind in an adjustment factor, c .

$$ET_r = c(tp/100)$$

The adjustment factor is actually a regression adjustment. On-site measurements of climatic data other than temperature are not required in the adjustment factor. Only general levels, or regional values, of radiation, humidity, and wind data are required.

Penman (1948) published the first of what have become known as the "combination methods". These methods are a combination of a theoretical energy balance, a mass-transfer approach, and an empirical wind function. Since the time of its original development, the Penman equation has seen many modifications. Various forms of the Penman equation have been developed for varying climatic regimes and local conditions. Monteith introduced a significant variation of the Penman method in 1965, including the use of a plant resistance parameter and a more general use of an aerodynamic resistance parameter (Monteith, 1965). The most recent and significant modification was completed by

Allen et al. (1989), and this version is referred to herein as the Penman-Monteith formula.

From comparisons of estimates to measured data in Wyoming, the Penman-Monteith formula for use with either grass or alfalfa reference ET estimates was the best combination method while the FAO Blaney-Criddle was the best single parameter equation for supplying grass reference ET estimates (Teegarden, 1992). Jensen et al. (1990) conclude similar results, with the Penman-Monteith equation ranking first among 20 methods tested while the FAO Blaney-Criddle ranked first among the single parameter equations.

The FAO Blaney-Criddle method is suggested for locations where available on-site climatic data consist only of air temperature (Doorenbos and Pruitt, 1977). Since the Penman-Monteith produces accurate estimates of reference ET when local data are available, the FAO Blaney-Criddle can be calibrated against the Penman-Monteith at each first order station and applied at other stations in a region with on-site temperature data and estimates of other climatic data from the first order stations to produce reliable estimates of monthly ET_r .

Reference ET was calculated at each first order site using local data for each individual month over a span of years of available data, usually 30-50 years, for both the Penman-Monteith equation and the FAO Blaney-Criddle formula. Using these estimates, an average FAO Blaney-Criddle to Penman-Monteith calibration coefficient was developed for each month at each first order station, each of which represent one of the seven regions (Table 4). This procedure is much the same as that used by Allen and Brockway (1983) in Idaho, except that they used the Wright-Penman equation as the comparison equation rather than the more recent modified Penman-Monteith formula. The "calibrated" FAO Blaney-Criddle was shown to be sensitive to changes and variations in temperature, wind, humidity, and radiation in much the same manner as the Wright Penman equation (Allen and Brockway, 1983).

Table 4. Calibration Coefficients for the FAO Blaney-Criddle Equation

Month	Casper	Cheyenne	Lander	Sheridan	Billings	RapidCity	Scottsbluff
Apr	1.22	1.11	1.09	1.10	1.07	1.09	1.16
May	1.00	0.93	0.91	0.91	0.91	0.92	0.97
Jun	0.95	0.89	0.86	0.87	0.88	0.88	0.91
Jul	0.93	0.89	0.84	0.86	0.87	0.90	0.90
Aug	0.98	0.92	0.86	0.89	0.90	0.92	0.93
Sep	1.09	1.00	0.92	0.99	0.98	1.04	1.03
Oct	1.26	1.14	0.99	1.12	1.13	1.16	1.19

CROP COEFFICIENTS

In the last decade or so, much research has been performed and much related literature has become available for the development of local crop coefficients. "The available methods for estimating reference ET when properly used with reliable crop curves permit estimating crop ET within the accuracy of most field-irrigation systems to deliver water" (Jensen et al., 1990). The major problem in the estimation of crop ET is the availability of "reliable crop curves". Due to recent simultaneous ET measurements of many crops and of reference crops, comparisons of ET can be made to develop local crop coefficients.

Crop coefficients were developed using various methodologies and references (Tables 6 and 7). The two main references were FAO Paper #33 (Doorenbos and Kassam, 1979) and ASCE Manual #70 (Jensen et al., 1990). FAO Paper #33 uses a grass reference while ASCE Manual #70 uses alfalfa as a reference. Since only grass reference is used herein, and since a standard conversion of 0.78 is suggested for alfalfa reference to grass reference, ASCE Manual #70 values were used as a check for the crop coefficients developed from FAO Paper #33. Any discrepancies were noted and adjustments were made when deemed appropriate. Crop coefficients for mountain meadow hay and lawn grass were developed using ET measurements collected in Wyoming. Alfalfa crop coefficients were developed using ASCE Manual #70 since FAO Paper #33 gives less information on alfalfa.

FAO Paper #33 provides a range of crop coefficients for various crop developmental stages as well as for the total growing period. Teegarden (1992) shows that Wyoming conditions best represent the low humidity and strong wind conditions associated with the higher side of the range of values. Monthly crop coefficients used herein were developed using the methodology given in FAO Paper #33. Adjustments to the monthly values were made when necessary to give crop coefficients within the range given in FAO Paper #33 for the total growing period--e.g., for wheat the K_c range is listed as 0.8 to 0.9 for the total growing period. All crop curves are shown in the Appendix.

For the purpose of development of forage and lawn grass consumptive use coefficients, the locations shown in Table 2 were categorized into 5 groups based on the average lengths of the growing seasons and the starting and ending dates of the growing seasons (Table 5). In a few instances, the growing season was changed by a few days so the station would satisfy the most appropriate grouping--for example, for Centennial. These groupings (Table 5) were used only for development of crop coefficients, while actual season lengths (Table 2) were used for calculation of consumptive use estimates.

Table 5. Locations and Season Lengths for Crop Coefficient Development

Group #1 4/1-10/15	Group #2 4/15-10/15	Group #3 4/15-9/30	Group #4 4/15-9/15	Group #5 5/1-9/15
Albin	Lusk	Double 4 Rch	Centennial	Afton
Arvada	Midwest	Ft Washakie	Encampment	Big Piney
Basin	Morrisey	Green River	Evanston	L Yellowston
BoysenDam	Newcastle	Laramie	MedicineBow	Moran
Buffalo	Pathfinder	Moorecroft	Rawlins	Pinedale
Casper	Pine Bluffs	Muddy Gap	Saratoga	South Pass
Cheyenne	Powell	Riverton	Seminoe Dam	Farson
Chugwater	Redbird	Rock Springs	Wamsutter	Jackson
Cody	Sheridan	Sundance		Kemmerer
Douglas	Ten Sleep	Sunshine		Sage
Gillette	Thermopolis			Tower Falls
Glenrock	Torrington			
Kaycee	Upton			
LaGrange	Weston			
Midwest	Whalen Dam			
Lander	Wheatland			
Lovell	Worland			

Alfalfa. Alfalfa requires special considerations when developing its crop coefficients. A methodology for developing alfalfa crop coefficients is given by Jensen et al. (1990). The difference between alfalfa reference ET and alfalfa crop ET is that early in the season when the crop is shorter than the defined reference height, alfalfa reference equations assume the crop is at reference height and estimate ET accordingly. In actuality, the alfalfa crop is shorter than reference and will use something less than alfalfa reference ET. The same is true after harvest of the alfalfa crop. The ASCE method uses alfalfa as the reference crop and assumes an increase in water use in the early season after the initial stage until the coefficient is 1.00 as compared to the alfalfa reference. It stays 1.00 until the first cutting and then drops abruptly, slowly rising until the next cutting but not quite reaching 1.00 again. This trend continues, for any number of cuttings, until the end of the water use season. Thus the mean crop coefficients for alfalfa are adjusted downward from 1.00. The values for alfalfa crop coefficients for alfalfa reference as given by Jensen et al. (1990) assume two mid-season harvests and one late-season harvest when the crop becomes dormant in cool weather. In Wyoming, the average is two harvests, with some locations having a third harvest. The curve shape does not change significantly with only two cuttings since the peak of the third section occurs in coincidence with the first average occurrence of 24°F frost in the fall. A smooth curve was fitted through the points of the alfalfa reference alfalfa crop curve, such that the areas above and below the lines were similar. The values of the smooth curve were divided by 0.78 to obtain grass reference alfalfa crop coefficient values as presented by Jensen et al (1990). Average monthly grass reference alfalfa crop coefficients adjusted for 2 cuttings and ending 7 to 10 days after the average 24°F frost in the fall were then determined for each of the five location groupings (Table 6). Coefficients are given for the highest locations, Group #5, although alfalfa may not be grown at those locations. However, the intent is for use in lower nearby areas where alfalfa may be grown.

Pasture Grass and Grass Hay. Crop coefficients for pasture grass and grass hay (Table 6) were developed based on coefficients used for alfalfa. Jensen et al. (1990) assume a fairly constant crop coefficient during the season of 0.87 for pasture grass when using an alfalfa reference. For dry, windy conditions, such as Wyoming, FAO gives a pasture grass crop coefficient of about 0.95 of mean alfalfa crop coefficients when using a grass reference, which is the recommendation used herein.

Grass hay, in this document, is assumed to be irrigated under a sprinkler system or a similar non-flooding system and is harvested one time in mid-July to mid-August. Pasture grass is assumed to have the same irrigation management as grass hay except that it is grazed during the season keeping the grass clipped somewhat. The extent of grazing will affect the water use. Since the coefficients are the same for grass hay and pasture grass, it is assumed that the water use given for pasture grass is similar to a grass hay crop having the same average crop height that is cut once during the season. If heavier grazing takes place, the water use by the pasture grass will be lower due to a shorter and less dense crop canopy. On the other hand, if the pasture is not grazed, the average water use will be somewhat higher than for grass hay. If pasture grass or hay is flood irrigated with a high water table, then the water use rates likely will be considerably higher than those given in this document.

Mountain Meadow Hay. High elevation mountain meadow hays in Wyoming are primarily flood irrigated and have high water tables. High water tables are a constant source of irrigation to the root zone and provide higher water use than in areas with low water tables. Mountain meadow crop coefficients (Table 6) were developed for grass reference ET directly using lysimeter data from the Green River Basin, Wyoming (Pochop and Burman, 1987) and estimates of clipped grass ET using a locally calibrated FAO Blaney-Criddle at locations in the Green River Basin where mountain meadow ET data are available.

Although all crops are to some extent grown at elevations somewhat different than those for which CU and CIR estimates are given in this document, mountain meadows are sometimes grown at considerable differences in elevation. As elevations increase above those at the locations listed, the growing season decreases and climatic conditions change. Temperatures, for example, normally decrease. Analyses of the average summer-time temperature lapse rate in Wyoming indicated that it is about 6°F and 3°F decrease per 1000 ft of elevation increase for maximum and minimum temperatures, respectively. Using these lapse rates, and assuming similar growing seasons, wind, radiation, and humidity at both the listed locations and at higher elevations, the average decrease in CU for mountain meadows was estimated as about 15% per 1000 ft elevation increase. However, regression analyses performed on CU estimates listed in Table 9 indicate that the CU versus elevation relationship varies greatly depending on location and initial elevation. (The map given as Figure 3 showing isolines of reference ET adjusted for forage growing season lengths provides further guidelines for the spatial variability of CU.) Precipitation differences between locations in mountainous regions differ greatly depending on local conditions. Thus, CIR estimates at locations not listed depend on difficult to define precipitation patterns.

Lawn Grass. Well-watered lawn grass can be defined as a clipped grass never short of water, which matches the definition of a grass reference. Thus the water use of lawn grass and a grass reference should closely match under similar climatic conditions. However, differences in water use do occur due to dissimilarities in the temperatures, wind speeds, and shading effects between residential areas in which lawn grasses are located and the open rural areas for which the grass reference is defined. These differences become less in larger open areas such as parks and golf courses. In addition, lawn grasses do have growth and development stages in early spring and late fall. Thus, consumptive use of lawn grass may be either less than or greater than that of a reference clipped grass crop. Monthly values of measured ET for lawn grass at Laramie and Wheatland, Wyoming (Pochop and Borrelli, 1979) and estimated clipped grass reference ET using the calibrated FAO Blaney-Criddle grass reference ET equation were used to determine lawn grass consumptive use coefficients for Wyoming (Table 6).

The consumptive use coefficients for lawn grass peak in June and taper off at the end of the season in August, September, and October. Unlike field crops, where maximum production (yield) is the ultimate goal, it is not a consideration in lawn grass. Rather, the goal is for the grass to be aesthetically pleasing. Barnes et al. (1979) explain that based on the Laramie and Wheatland, Wyoming lawn grass ET data, "an aesthetically pleasing lawn can be achieved with an average application rate equal to or less than the seasonal ET rate. Proper water application, timing, and other lawn care factors must be considered".

Table 6. Grass Reference Crop Coefficients for Forages and Lawns

Mon	Alfalfa Hay					Pasture and Grass Hay					Mountain Meadow		Lawn Grass		
	#1	#2	#3	#4	#5	#1	#2	#3	#4	#5	Hay	#1	#2	#3	
Apr	0.92	0.82	0.82	0.83	--	0.87	0.78	0.78	0.79	--	0.91	0.91	0.85		
May	1.08	1.04	1.04	1.06	0.95	1.03	0.99	0.99	1.01	0.90	1.14	0.97	1.02		
Jun	1.09	1.09	1.09	1.09	1.09	1.04	1.04	1.04	1.04	1.04	1.24	0.97	1.06		
Jul	1.08	1.09	1.07	1.04	1.06	1.03	1.04	1.02	0.99	1.01	1.23	0.93	1.02		
Aug	0.98	0.99	0.94	0.86	0.88	0.93	0.94	0.89	0.82	0.84	1.04	0.86	0.94		
Sep	0.80	0.81	0.72	0.66	0.67	0.76	0.77	0.68	0.63	0.64	0.80	0.77	0.82		
Oct	0.65	0.65	--	--	--	0.62	0.62	--	--	--	0.48	0.64	0.66		

Header numbers identifying the columns refer to the station groups in Table 5

Annual Crops. Crop coefficients specifically for spring grains (spring wheat, barley, and oats) are not given in FAO Paper #33. Coefficients for wheat are given, but no definitive distinction is made between spring wheat and winter wheat. ASCE Manual #70, on the other hand, does distinguish spring grains (wheat and barley) from winter wheat. Thus, ASCE Manual #70 values were used as a check and comparison for the coefficients developed from the FAO Report #33 recommendations (Table 7).

Unlike ASCE Manual #70 recommendations, FAO Paper #33 procedures do not result in higher winter wheat K_c values at the start of the summer growing season as compared to spring grain K_c values. However, since the summer growing season for winter wheat begins 15 days earlier than for spring grain at the same location, April and May CU and CIR estimates in Table 9 for winter wheat are greater than for spring grains.

A May 15 through October 4 growing season was used to develop an average crop curve for corn. Variety differences can lead to considerable differences in growing seasons for corn. Crop coefficients, and CU and CIR estimates, for corn silage will be the same as for corn grain until cutting of the silage after which the irrigation season for corn silage is discontinued.

The crop curve for dry beans is based on a growing season defined by the average planting and harvest dates of June 1 and September 15, respectively. The crop curve for dry beans was developed by adjusting the upper limit of K_c values for the developmental stages recommended in FAO Paper #33 downward about 5 percent so that the K_c for the total growing period was within the range recommended in FAO Paper #33.

Differences between FAO Paper #33 and ASCE Manual #70 published crop coefficients are greater for potatoes than for any other crop considered herein. These differences have been recognized and acknowledged by Jensen et al. (1990) and have been attributed mainly to variety differences. Coefficients used herein are from FAO Paper #33 recommendations, which are higher than ASCE values. However, total seasonal CU estimates using FAO Paper #33 recommendations are similar to example CU estimates given in ASCE Manual #70 for potatoes at Kimberly, Idaho. A shorter growing season, as recommended in FAO Paper #33, appears to compensate for the higher K_c values in calculating seasonal CU estimates for potatoes. The 5% reduction in K_c values for individual developmental stages was applied in the same manner as was done for dry beans.

The crop curve for sugar beets was developed for an average growing season of April 24 to October 1. Crop coefficients recommended in FAO Paper #33 were somewhat lower than values recommended in ASCE Manual #70 (Teegarden, 1992).

Table 7. Grass Reference Crop Coefficients for Annual Crops

Mon	Spring Grain		Winter Wheat		Corn	Dry Beans	Sugar	
	#1	#2-#3	#1	#2			Potatoes	Beets
Apr	0.44	--	0.54	0.41	--	--	--	0.43
May	0.88	0.57	1.11	0.82	0.48	--	0.45	0.48
Jun	1.18	1.13	1.15	1.17	0.60	0.44	0.61	0.82
Jul	0.77	1.05	0.69	1.01	1.00	1.04	1.06	1.10
Aug	--	0.56	--	0.50	1.18	0.98	1.08	1.10
Sep	--	--	--	--	0.96	0.57	1.83	0.86
Oct	--	--	--	--	0.64	--	--	--

Header numbers identifying the columns refer to the station groups given in Table 5.

The coefficients shown for corn are for corn grain. However, the same coefficients can be used for corn silage until the silage is cut, after which the season is truncated.

CONSUMPTIVE IRRIGATION REQUIREMENT ESTIMATES

Consumptive irrigation requirement estimates were calculated by subtracting monthly precipitation from monthly crop consumptive use estimates. Estimates were calculated using 40 years of record, 1951-1990, except at a few locations where the available historic climatic records were limited to a shorter period. For crops at locations where the growing season began on a day other than the first of a month or ended on a day other than the last day of the month, all precipitation for the entire month was assumed to be effective for use by the crop. For example, if the growing season of a crop was defined to begin on April 15 then CIR for April was calculated by subtracting the measured precipitation for April 1 through April 30 from the CU estimate for April 15 through April 30. Also, if precipitation for any month was greater than the CU for the month, CIR was estimated to be zero for that month and excess precipitation was not carried over to the next month. That is, all calculations were performed on a monthly basis.

A major factor that is not clearly accounted for by reference ET equations is the effect of limited soil water. The equations estimate ET assuming that soil water is at a level where the crop will maintain water use without reduction due to availability of soil water. In reality, however, crops may be irrigated at intervals such that by the time of irrigation, the soil water is significantly depleted. Most methods allow some level of depletion to occur without any expected reduction in crop water use. However, the levels of soil water depletion allowed by various calibrations of reference ET equations, or by published crop coefficients, are not always clearly stated. Therefore, it is not always clear when or whether adjustments for soil depletion should be applied. For example, Jensen et al., (1990) state that the "mean" crop coefficients published in ASCE Manual #70 are for normal irrigation and precipitation practices. This includes the effects expected from regular wetting of the surface which occurs with irrigation or precipitation. If soil water is available without the surface being wet, consumptive use is expected to be reduced due to reduction in the evaporation component. Within the limits of

present knowledge, if local soil water levels are measured or estimated, methods are available for adjusting CU and CIR estimates to supply more accurate "on-farm" crop water use estimates.

DISCUSSION OF TABLES

Monthly and seasonal grass reference ET estimates and consumptive use and consumptive irrigation requirement estimates are given at each of 67 locations (Tables 8 and 9). Mean, maximum, and minimum estimates are given for both ET_r and CU and CIR. Seasonal values of mean ET_r , CU, and CIR are equal to the summation of the monthly mean values shown in the tables. However, seasonal values of maximum and minimum ET_r , CU, and CIR are for the years of record with the highest and lowest respective estimates. The maximum and minimum monthly values shown in the tables do not all occur during the year with the maximum or minimum seasonal occurrences. Thus, the seasonal values of maximum and minimum ET_r , CU, and CIR are not the summation of the monthly maximum and minimum values shown in the tables.

Effort has been made to provide CU and CIR estimates for all crops grown at each location. However, occasionally a crop may have been overlooked at a specific location. In these cases, estimates of mean CU and CIR may be obtained by using the ET_r values of Table 8, the K_c values of Tables 6 and/or 7, and the average precipitation values given in Table A1 of the Appendix. These estimates would use long-term averages and, thus, are not as accurate as those presented in Table 9, which were determined based on year-by-year calculations for the period of record (usually 1951-1990).

Maps of Wyoming are given showing isolines of estimated April through October ET_r (Fig. 2) and estimated ET_r (Fig. 3) based on the length of the forage growing season as given for each station in Table 2. Figure 2 may be used to roughly extrapolate seasonal ET_r from locations where estimates are given in Table 8 to points without tabulated estimates. Figure 3 provides the same type of information, but adjustments for the length of the forage growing season have been made. This gives a more realistic estimate of local conditions than would be provided by Figure 2. To a lesser degree of accuracy, especially because of precipitation variations in the case of CIR, the same general trends between isolines can be assumed for CU and CIR.

Table 8. Grass Reference ET Estimates

	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON
AETON								
Mean ETr	2.63	4.05	5.06	6.07	5.61	3.82	2.18	29.51
Max ETr	4.22	5.35	6.82	7.23	6.56	4.75	3.39	36.27
Min ETr	1.39	2.75	3.71	5.00	4.80	2.59	1.05	24.64
ALBIN								
Mean ETr	4.29	5.44	6.77	7.74	7.18	5.63	4.11	41.24
Max ETr	5.85	7.12	8.62	9.19	9.09	6.99	5.37	48.46
Min ETr	2.40	3.32	4.63	6.28	5.86	3.63	1.31	33.14
ALTA								
Mean ETr	2.38	3.87	5.09	6.17	5.60	3.91	2.17	29.16
Max ETr	4.09	5.70	6.67	7.24	6.84	5.32	3.44	35.54
Min ETr	1.05	2.52	3.66	5.00	4.54	2.53	1.07	25.18
ARVADA								
Mean ETr	3.80	5.11	6.26	8.08	7.49	5.15	3.43	39.49
Max ETr	5.32	6.96	8.08	9.44	9.64	7.47	4.43	43.68
Min ETr	2.50	4.00	4.97	6.21	6.13	2.97	1.86	33.81
BASIN								
Mean ETr	4.40	5.78	7.20	8.15	7.38	5.03	3.00	40.93
Max ETr	5.93	7.31	9.09	9.30	8.74	6.32	4.14	45.47
Min ETr	2.89	4.43	5.24	6.36	6.27	3.07	1.73	36.05
BEDFORD								
Mean ETr	2.46	3.88	5.00	5.97	5.45	3.90	2.35	29.13
Max ETr	3.81	5.16	6.41	6.77	6.55	5.24	3.39	33.65
Min ETr	1.26	2.81	3.64	4.92	4.72	2.41	0.94	25.66
BIG PINEY								
Mean ETr	2.12	3.65	4.95	5.80	5.06	3.32	1.66	26.43
Max ETr	3.29	4.88	6.18	6.56	5.87	4.59	2.59	29.47
Min ETr	1.11	2.65	3.66	4.48	4.38	2.08	0.56	23.57
BORDER								
Mean ETr	2.76	4.24	5.36	6.38	5.79	4.03	2.23	30.62
Max ETr	4.51	5.21	6.74	7.27	6.72	5.14	3.08	33.96
Min ETr	1.52	2.86	3.92	5.30	5.01	2.59	1.03	26.90
BOYSEN DAM								
Mean ETr	4.36	5.74	7.31	8.41	7.68	5.33	3.22	41.99
Max ETr	6.04	7.54	9.29	9.79	8.98	6.72	4.26	48.55
Min ETr	2.91	3.96	5.11	6.77	6.49	3.30	1.80	35.62
BUFFALO								
Mean ETr	3.71	4.85	6.04	7.49	6.99	4.86	3.15	37.09
Max ETr	5.99	6.44	8.81	8.94	8.66	6.22	4.30	44.74
Min ETr	2.37	3.52	4.48	5.54	5.48	2.80	1.84	31.77
CASPER								
Mean ETr	3.63	4.87	6.71	8.13	7.65	5.64	3.77	40.39
Max ETr	5.51	6.48	9.13	9.41	8.73	6.90	5.10	46.47
Min ETr	2.34	3.70	4.73	6.31	6.14	3.57	1.73	32.63
CENTENNIAL								
Mean ETr	2.94	4.00	5.20	6.09	5.43	4.34	3.14	31.23
Max ETr	4.28	5.28	6.62	7.18	6.53	5.39	4.50	37.83
Min ETr	1.67	2.33	3.20	4.97	4.47	2.75	2.01	25.30
CHEYENNE								
Mean ETr	3.92	5.09	6.34	7.30	6.71	5.20	3.79	38.46
Max ETr	5.40	6.59	7.99	8.79	8.59	6.61	5.31	45.65
Min ETr	2.10	2.96	4.46	5.87	5.43	3.40	1.64	30.63
CHUGWATER								
Mean ETr	4.38	5.48	6.69	7.59	7.04	5.47	4.06	40.58
Max ETr	5.97	6.82	8.64	9.05	8.88	6.81	5.53	45.85
Min ETr	2.77	3.44	4.84	6.13	5.58	3.77	1.86	32.01
CODY								
Mean ETr	3.57	4.85	6.06	7.66	6.98	4.85	3.44	37.73
Max ETr	5.24	6.67	8.58	9.25	8.66	6.28	4.69	46.07
Min ETr	2.26	3.37	3.51	5.92	5.16	2.97	1.95	32.85
COLONY								
Mean ETr	4.00	5.12	6.34	8.17	7.70	5.75	3.67	40.75
Max ETr	5.63	7.15	9.34	9.74	8.85	6.71	4.88	48.19
Min ETr	2.55	4.12	4.97	6.67	6.62	3.94	2.26	37.10
DOUBLE FOUR RANCH								
Mean ETr	3.17	4.24	5.79	6.97	6.50	4.87	3.30	34.91
Max ETr	4.58	5.57	8.01	8.14	7.97	5.84	4.46	40.10
Min ETr	1.58	2.78	3.92	5.39	5.11	3.32	1.45	27.63

Reference ET values are in inches.

Table 8. Grass Reference ET Estimates, continued

	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON
DOUGLAS								
Mean ETr	3.85	4.94	6.68	8.05	7.51	5.65	3.79	40.43
Max ETr	5.21	6.41	8.74	9.18	8.62	6.95	5.01	45.68
Min ETr	2.40	3.77	4.80	7.06	5.97	3.55	1.92	34.07
DUBOIS								
Mean ETr	2.46	3.83	5.04	5.95	5.46	3.62	2.18	28.17
Max ETr	4.31	5.21	7.05	7.28	6.48	4.94	3.44	32.68
Min ETr	1.10	2.80	3.20	4.65	4.43	2.01	0.99	24.10
ENCAMPMENT								
Mean ETr	3.43	4.63	5.61	6.50	5.99	4.69	3.41	34.44
Max ETr	4.57	5.95	6.87	7.99	7.71	5.77	4.70	38.81
Min ETr	1.91	3.20	4.10	5.63	4.75	3.15	1.41	30.38
EVANSTON								
Mean ETr	2.88	4.12	5.57	6.91	6.47	4.90	3.21	34.12
Max ETr	5.04	5.65	7.43	8.02	7.69	6.17	4.47	40.92
Min ETr	1.28	2.69	4.03	5.62	5.24	3.42	1.69	26.56
FARSON								
Mean ETr	2.51	3.78	5.25	6.61	5.97	4.39	2.52	31.02
Max ETr	3.29	5.05	7.02	7.36	7.04	5.70	3.48	35.09
Min ETr	1.53	2.14	3.81	5.75	4.96	2.97	1.01	25.60
FORT WASHAKIE								
Mean ETr	3.33	4.66	5.97	6.99	6.47	4.37	2.66	34.19
Max ETr	4.64	6.02	7.07	8.07	7.66	5.93	3.90	39.38
Min ETr	1.69	3.26	4.18	5.36	5.47	2.66	1.05	29.12
GILLETTE								
Mean ETr	3.86	5.07	6.28	8.02	7.51	5.29	3.46	39.49
Max ETr	5.96	7.02	9.00	9.32	9.44	6.91	4.90	45.32
Min ETr	2.36	3.80	4.68	5.79	6.00	2.90	1.75	34.10
GLENROCK								
Mean ETr	4.12	5.28	7.08	8.46	7.94	5.97	4.15	42.99
Max ETr	6.12	7.02	9.58	9.58	9.28	7.36	5.57	50.30
Min ETr	2.77	3.86	5.04	6.68	6.34	4.03	2.40	34.85
GREEN RIVER								
Mean ETr	3.55	4.83	6.43	7.71	7.12	5.32	3.54	38.54
Max ETr	5.01	6.13	8.39	8.77	8.23	6.64	5.01	43.24
Min ETr	2.40	3.65	4.81	6.63	5.92	3.71	1.80	31.64
JACKSON								
Mean ETr	2.68	3.94	5.10	6.07	5.47	3.76	2.05	29.05
Max ETr	4.05	5.52	6.87	7.08	6.52	4.74	3.17	35.44
Min ETr	1.43	2.98	3.66	5.29	4.52	2.40	1.11	25.03
KAYCEE								
Mean ETr	3.75	4.91	6.11	7.61	7.07	4.97	3.22	37.58
Max ETr	5.47	6.45	8.72	9.01	8.41	6.50	4.14	44.42
Min ETr	2.37	3.63	4.43	5.89	5.84	2.92	1.80	31.79
KEMMERER								
Mean ETr	2.44	3.84	5.14	6.48	5.93	4.34	2.64	30.83
Max ETr	4.09	4.99	6.99	7.43	7.42	5.58	4.31	36.77
Min ETr	1.19	2.72	3.79	5.40	4.91	2.93	1.09	24.74
LA GRANGE								
Mean ETr	3.94	4.85	6.25	7.38	6.67	5.03	3.50	37.64
Max ETr	5.28	6.56	7.65	8.42	8.17	6.07	4.70	41.22
Min ETr	2.74	3.27	4.78	6.44	5.61	3.61	1.56	33.95
LAKE YELLOWSTONE								
Mean ETr	1.10	2.43	3.64	4.84	4.42	2.83	1.28	20.50
Max ETr	2.44	3.74	5.33	6.25	5.89	4.09	2.15	25.99

Table 8. Grass Reference ET Estimates, continued

	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	
LUSK	Mean ETr	3.71	4.91	6.63	7.91	7.47	5.62	3.89	40.25
	Max ETr	5.03	6.39	9.10	9.36	8.93	6.65	5.24	44.25
	Min ETr	2.38	3.55	4.66	6.08	6.41	3.70	1.54	31.68
MOORCROFT	Mean ETr	3.50	4.72	5.99	7.60	7.17	4.91	3.07	36.85
	Max ETr	5.53	6.65	9.08	8.88	8.86	6.36	4.28	44.74
	Min ETr	2.16	3.49	4.38	5.58	5.51	2.58	1.45	31.44
MEDICINE BOW	Mean ETr	3.22	4.42	6.10	7.17	6.55	4.95	3.21	35.41
	Max ETr	4.66	6.24	7.95	8.13	7.61	6.06	4.11	41.63
	Min ETr	1.96	3.16	4.22	5.61	5.29	3.48	1.51	28.60
MIDWEST	Mean ETr	4.14	5.42	7.19	8.49	8.01	6.03	4.27	43.55
	Max ETr	6.20	6.88	9.39	9.72	9.28	7.34	5.67	47.40
	Min ETr	2.93	4.23	5.08	6.63	6.44	3.86	2.47	36.27
MORAN	Mean ETr	1.92	3.35	4.63	5.66	5.12	3.41	1.74	25.84
	Max ETr	3.33	4.70	6.56	6.83	6.19	4.64	2.94	33.02
	Min ETr	0.97	2.28	3.29	4.62	3.93	2.06	0.95	20.83
MORRISEY	Mean ETr	3.95	5.32	7.09	8.70	8.22	6.24	4.27	43.77
	Max ETr	5.41	6.77	9.89	0.36	9.47	7.54	5.87	48.56
	Min ETr	2.77	4.11	5.20	6.53	6.76	3.83	2.26	35.84
MUDGY GAP	Mean ETr	3.40	4.62	6.33	7.64	7.19	5.40	3.61	38.05
	Max ETr	5.12	6.09	8.54	8.62	8.38	6.62	4.80	44.76
	Min ETr	1.57	3.38	4.12	6.21	5.43	3.46	1.71	30.13
NEWCASTLE	Mean ETr	4.12	5.23	6.53	8.20	7.54	5.67	3.62	41.00
	Max ETr	5.35	6.87	8.37	9.27	8.75	6.65	4.59	46.73
	Min ETr	2.91	4.38	5.38	7.02	6.48	4.04	2.49	37.30
PATHFINDER DAM	Mean ETr	3.46	4.75	6.50	7.92	7.49	5.59	3.90	39.88
	Max ETr	5.17	6.07	8.80	9.30	8.68	6.96	5.00	46.52
	Min ETr	1.99	3.34	4.54	6.34	6.25	3.39	1.93	32.05
PINE BLUFFS	Mean ETr	4.40	5.61	6.92	7.96	7.28	5.63	4.01	41.94
	Max ETr	5.98	7.16	8.78	9.63	9.20	6.82	5.60	47.40
	Min ETr	2.81	3.66	5.15	6.32	5.74	3.95	1.83	35.32
PINEDALE	Mean ETr	2.09	3.59	4.84	5.71	5.03	3.41	1.78	26.27
	Max ETr	3.21	5.80	6.13	6.59	5.84	4.79	2.67	30.59
	Min ETr	1.13	2.53	3.10	4.75	4.28	2.06	0.68	23.25
POWELL	Mean ETr	3.97	5.36	6.46	8.04	7.39	5.07	3.37	39.66
	Max ETr	5.71	7.33	8.89	9.70	9.20	6.43	4.72	45.82
	Min ETr	2.82	3.69	3.91	6.35	5.81	3.05	2.06	30.70
RAWLINS	Mean ETr	2.90	4.20	5.94	7.25	6.70	4.90	3.05	34.84
	Max ETr	4.33	5.39	7.93	8.26	7.80	6.19	4.18	40.78
	Min ETr	1.66	3.05	4.24	5.94	5.40	3.13	1.11	28.54
REDBIRD	Mean ETr	4.18	5.41	7.13	8.53	8.00	5.94	4.00	43.18
	Max ETr	5.69	6.98	9.51	9.82	9.61	7.27	5.52	47.94
	Min ETr	2.78	4.07	4.85	6.55	6.27	3.65	2.36	34.94
RIVERTON	Mean ETr	3.75	5.11	6.59	7.59	6.87	4.67	2.61	37.24
	Max ETr	5.25	6.71	8.73	8.78	7.99	5.95	3.78	43.84
	Min ETr	2.21	3.60	4.62	6.11	5.90	2.88	1.34	32.46
ROCK SPRINGS	Mean ETr	3.25	4.51	6.26	7.57	7.04	5.29	3.39	37.37
	Max ETr	5.05	6.13	8.24	8.57	8.41	6.52	4.68	43.83
	Min ETr	1.98	3.14	4.46	6.20	5.51	3.00	1.45	30.21
SAGE	Mean ETr	2.79	4.08	5.27	6.32	5.58	3.75	2.03	28.78
	Max ETr	4.09	5.41	6.86	7.28	6.62	4.75	2.90	35.12
	Min ETr	1.52	2.66	3.98	5.26	4.42	2.57	1.06	25.37

Table 8. Grass Reference ET Estimates, continued

	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON
SARATOGA								
Mean ETr	3.81	5.06	6.24	7.18	6.47	4.98	3.52	37.57
Max ETr	5.29	6.14	7.80	8.46	8.01	6.06	4.69	44.28
Min ETr	2.45	3.21	4.33	6.11	5.35	3.30	1.65	30.45
SEMINOE DAM								
Mean ETr	3.05	4.37	6.14	7.49	7.00	5.24	3.37	36.43
Max ETr	4.69	5.95	8.34	8.55	8.38	6.59	4.59	40.52
Min ETr	1.33	3.08	4.28	6.09	5.71	3.31	1.41	29.32
SHERIDAN								
Mean ETr	3.52	4.74	5.81	7.44	6.96	4.75	2.98	36.16
Max ETr	5.65	6.76	8.62	8.64	8.76	6.09	4.26	42.16
Min ETr	1.81	3.70	4.30	5.59	5.47	2.65	1.74	31.27
SOUTH PASS CITY								
Mean ETr	1.72	3.37	4.42	5.78	5.09	3.55	1.78	25.53
Max ETr	2.70	4.90	5.94	6.61	6.46	4.48	2.74	29.13
Min ETr	0.69	2.39	3.31	5.24	4.23	1.92	0.56	21.42
SUNDANCE								
Mean ETr	3.47	4.45	5.58	7.23	6.81	5.16	3.24	35.93
Max ETr	4.91	6.14	7.93	8.64	7.78	6.00	4.40	42.58
Min ETr	2.09	3.61	4.47	5.93	5.72	3.70	1.88	32.07
SUNSHINE								
Mean ETr	2.60	3.82	5.05	5.94	5.43	3.69	2.18	28.66
Max ETr	3.93	5.59	6.74	7.03	6.66	5.07	3.29	35.17
Min ETr	1.23	2.52	3.12	4.24	4.42	2.07	0.14	21.90
TEN SLEEP								
Mean ETr	3.68	4.96	6.48	7.51	6.81	4.38	2.50	36.21
Max ETr	4.98	6.47	8.14	8.57	8.11	5.76	3.80	39.91
Min ETr	2.23	3.71	4.45	6.32	5.96	2.76	1.37	31.37
TERHOMPOLIS								
Mean ETr	3.71	4.93	6.24	7.19	6.55	4.52	2.78	36.15
Max ETr	5.27	7.11	9.08	8.98	8.02	6.19	4.40	43.17
Min ETr	1.89	3.61	3.91	5.62	5.13	2.32	1.39	30.27
TORRINGTON								
Mean ETr	4.26	5.20	6.56	7.49	6.71	5.14	3.54	38.95
Max ETr	6.00	6.77	7.82	8.61	8.19	6.44	4.65	43.24
Min ETr	2.78	3.97	5.02	6.52	5.48	3.57	2.36	34.05
TOWER FALLS								
Mean ETr	2.25	3.67	4.65	5.61	5.12	3.44	1.78	26.76
Max ETr	3.43	5.00	6.14	6.60	6.26	4.43	2.80	31.27
Min ETr	0.88	2.71	3.40	4.32	3.75	1.78	0.88	22.53
UPTON								
Mean ETr	3.73	4.87	6.11	7.82	7.25	5.35	3.24	38.06
Max ETr	5.39	6.67	8.30	9.19	8.44	6.38	4.19	44.56
Min ETr	2.26	3.96	4.88	6.44	5.95	3.70	1.69	34.37
WAMSUTTER								
Mean ETr	3.21	4.30	6.22	7.18	6.55	4.89	3.27	35.87
Max ETr	4.40	5.44	7.88	8.15	7.19	6.23	4.30	41.09
Min ETr	1.59	2.91	4.33	6.42	5.49	2.80	1.59	29.01
WESTON								
Mean ETr	4.05	5.16	6.39	7.89	7.39	5.11	3.31	39.31
Max ETr	5.83	6.59	9.19	9.15	9.20	6.46	4.48	45.82
Min ETr	2.53	4.30	4.83	6.19	5.83	2.88	2.16	34.35
WHALENA DAM								
Mean ETr	4.11	5.08	6.52	7.56	6.87	5.26	3.74	39.04
Max ETr	5.71	6.59	8.03	8.96	8.23	6.64	4.87	43.65
Min ETr	3.06	3.93	4.54	6.45	5.70	3.50	1.94	35.10
WHEATLAND								
Mean ETr	4.11	5.05	6.35	7.37	6.63	5.14	3.77	38.40
Max ETr	5.49	6.96	7.79	8.55	7.67	6.31	4.82	41.85
Min ETr	2.84	3.98	4.42	6.19	5.51	3.52	1.99	34.65
WORLAND								
Mean ETr	4.08	5.52	6.96	7.90	7.10	4.77	2.83	39.19
Max ETr	6.04	7.10	9.18	9.13	8.18	5.96	3.95	46.10
Min ETr	2.51	4.09	5.01	6.00	5.05	2.94	1.57	33.49

Reference ET values are in inches.

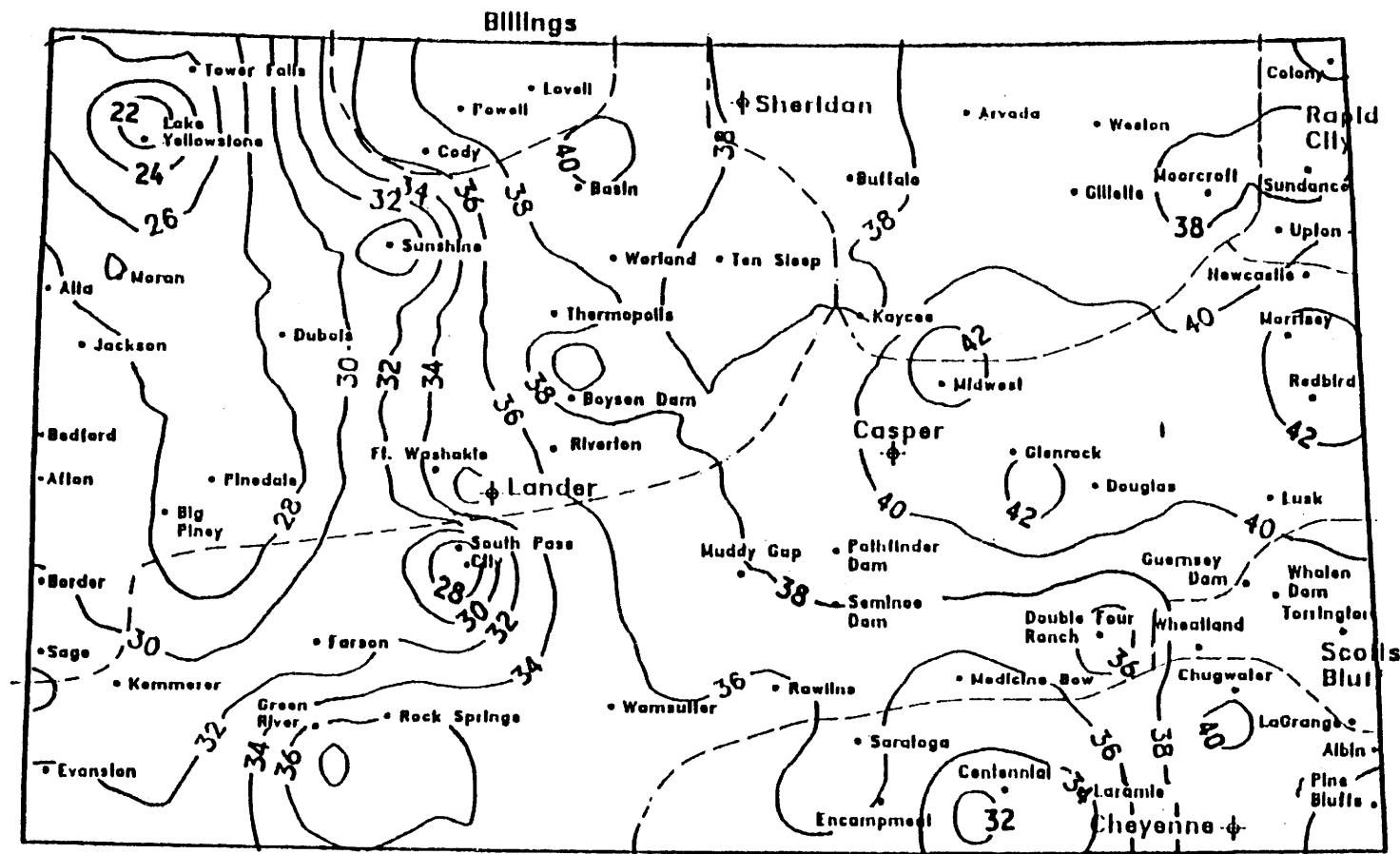


Figure 2. Map of April-October Reference Consumptive Use Isolines.

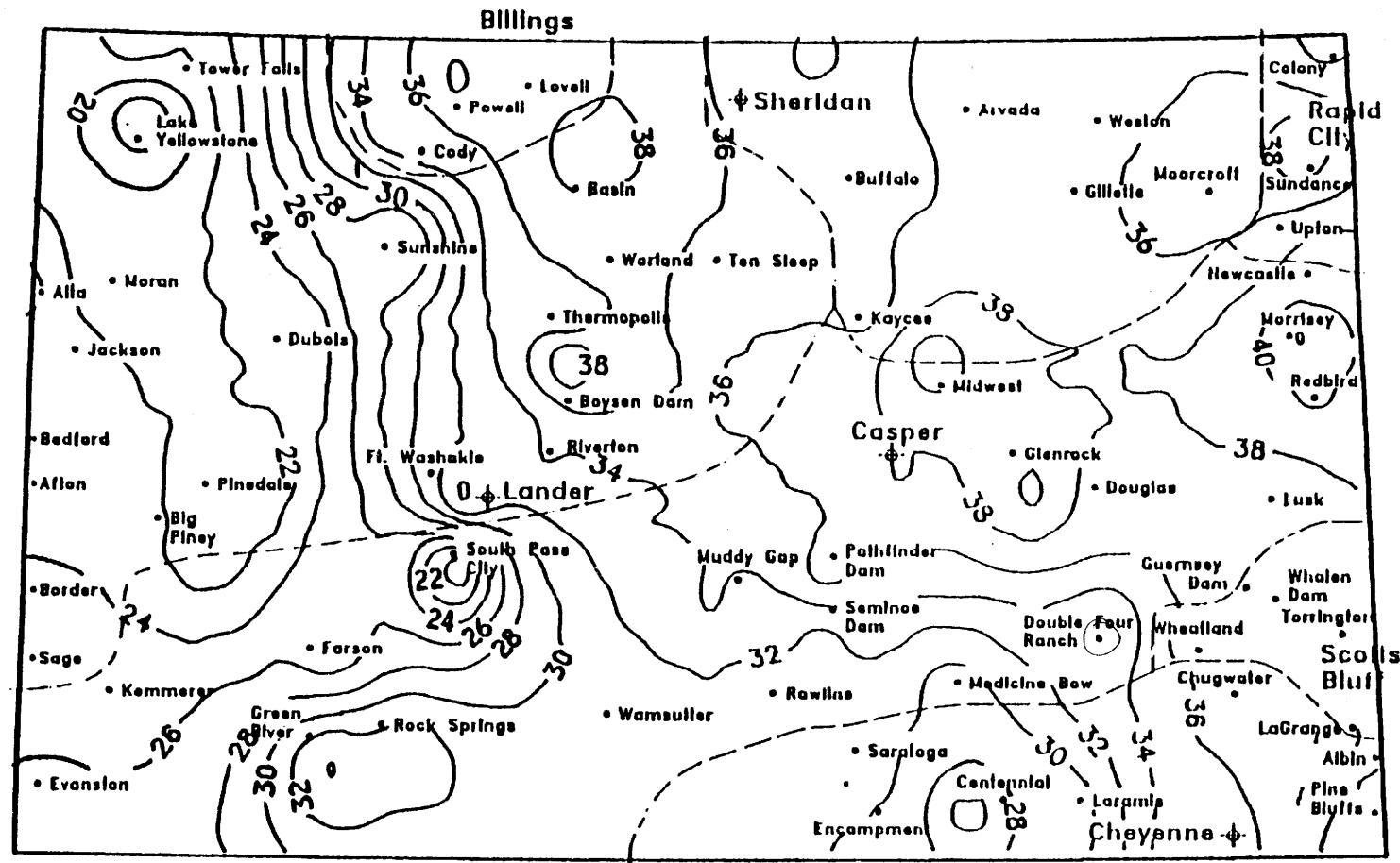


Figure 3. Map of Forage Season Reference Consumptive Use Isolines.

Table 9. CU and CIR Estimates

AFTON										ALBIN									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		
ALFALFA HAY										ALFALFA HAY									
Mean CU	0.44	4.32	5.51	6.34	4.83	1.27	--	22.76	Mean CU	3.44	5.95	7.40	8.35	7.08	4.46	1.03	37.81		
CIR	0.02	2.36	3.54	5.09	3.60	0.34	--	15.06	CIR	1.65	3.10	4.80	6.23	5.63	3.18	0.40	25.26		
Max CU	0.70	5.67	7.43	7.52	5.64	1.56	--	27.30	Max CU	4.66	7.69	9.40	9.93	8.91	5.59	1.35	44.40		
CIR	0.47	5.40	7.05	7.48	5.31	1.39	--	23.48	CIR	3.68	6.86	8.19	9.08	8.09	5.56	1.10	32.19		
Min CU	0.23	3.10	4.04	5.32	4.13	0.85	--	19.56	Min CU	1.91	3.59	5.05	6.78	5.84	2.90	0.33	31.10		
CIR	0.00	0.00	0.00	1.53	1.35	0.00	--	9.21	CIR	0.00	0.00	0.09	1.46	3.02	0.00	0.00	13.51		
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY										
Mean CU	0.42	4.11	5.26	6.04	4.60	1.21	--	21.69	Mean CU	3.26	5.68	7.06	7.96	6.72	4.24	0.98	35.99		
CIR	0.02	2.18	3.31	4.78	3.38	0.32	--	14.08	CIR	1.48	2.85	4.46	5.85	5.27	2.97	0.37	23.49		
Max CU	0.66	5.40	7.09	7.16	5.38	1.48	--	26.02	Max CU	4.41	7.33	8.96	9.47	8.45	5.31	1.29	42.26		
CIR	0.44	5.14	6.71	7.12	5.05	1.33	--	22.24	CIR	3.43	6.52	7.75	8.62	7.63	5.28	1.05	30.29		
Min CU	0.22	2.95	3.86	5.07	3.94	0.81	--	18.64	Min CU	1.81	3.42	4.82	6.47	5.54	2.76	0.32	29.60		
CIR	0.00	0.00	0.00	1.28	1.15	0.00	--	8.27	CIR	0.00	0.00	0.00	1.14	2.65	0.00	0.00	12.31		
MOUNTAIN MEADOW HAY									LAWN GRASS										
Mean CU	0.48	4.64	6.27	7.50	5.84	1.54	--	26.33	Mean CU	3.41	5.35	6.58	7.19	6.21	4.28	1.01	34.13		
CIR	0.03	2.67	4.27	6.25	4.61	0.47	--	18.41	CIR	1.62	2.55	4.01	5.07	4.76	3.02	0.39	21.65		
Max CU	0.76	6.10	8.46	8.89	6.82	1.90	--	31.57	Max CU	4.61	6.91	8.36	8.55	7.82	5.38	1.33	40.12		
CIR	0.53	5.83	8.08	8.85	6.47	1.69	--	27.70	CIR	3.63	6.12	7.15	7.70	7.00	5.35	1.08	28.30		
Min CU	0.25	3.33	4.60	6.30	4.99	1.03	--	22.67	Min CU	1.89	3.22	4.49	5.84	5.13	2.80	0.33	27.94		
CIR	0.00	0.00	0.00	2.51	2.24	0.00	--	12.34	CIR	0.00	0.00	0.00	0.51	2.12	0.00	0.00	10.74		
LAWN GRASS									SPRING GRAINS										
Mean CU	0.45	4.16	5.36	6.22	5.28	1.58	--	23.09	Mean CU	0.94	4.79	7.99	5.96	--	--	--	19.76		
CIR	0.03	2.21	3.40	4.97	4.05	0.49	--	15.25	CIR	0.07	2.11	5.29	3.89	--	--	--	11.56		
Max CU	0.71	5.46	7.23	7.37	6.17	1.94	--	27.63	Max CU	1.29	6.27	10.17	7.08	--	--	--	23.81		
CIR	0.48	5.20	6.85	7.33	5.82	1.73	--	23.80	CIR	0.68	5.51	8.96	6.27	--	--	--	16.29		
Min CU	0.24	2.98	3.83	5.22	4.51	1.06	--	19.88	Min CU	0.53	2.92	5.46	4.84	--	--	--	15.39		
CIR	0.00	0.00	0.00	1.43	1.74	0.00	--	9.27	CIR	0.00	0.00	0.60	0.00	--	--	--	3.47		
SPRING GRAINS									WINTER WHEAT										
Mean CU	--	2.31	5.72	6.37	1.57	--	--	15.99	Mean CU	2.32	6.04	7.79	5.34	--	--	--	21.56		
CIR	--	0.67	3.90	5.18	0.56	--	--	10.35	CIR	0.78	3.26	5.09	3.30	--	--	--	12.63		
Max CU	--	3.05	7.71	7.59	1.84	--	--	19.69	Max CU	3.16	7.90	9.91	6.34	--	--	--	26.24		
CIR	--	2.83	7.33	7.55	1.56	--	--	17.09	CIR	2.41	7.06	8.70	5.55	--	--	--	18.74		
Min CU	--	1.57	4.19	5.25	1.34	--	--	13.65	Min CU	1.30	3.69	5.32	4.33	--	--	--	16.78		
CIR	--	0.00	0.00	1.59	0.00	--	--	5.52	CIR	0.00	0.00	0.43	0.00	--	--	--	3.72		
CU and CIR are in inches.																			
CORN																			
Mean CU	--	--	1.31	4.06	7.74	8.48	5.41	0.33	27.36	Mean CU	--	--	2.98	8.05	7.04	1.58	--	19.69	
CIR	--	--	0.14	1.60	5.65	6.94	4.13	0.03	18.51	CIR	--	--	0.82	5.96	5.50	0.65	--	13.02	
Max CU	--	--	1.71	5.17	9.19	10.73	6.71	0.43	31.90	Max CU	--	--	3.79	9.56	8.91	1.96	--	23.41	
CIR	--	--	1.21	3.96	8.34	9.91	6.68	0.30	24.71	CIR	--	--	2.58	8.71	8.09	1.93	--	18.47	
Min CU	--	--	0.80	2.78	6.28	6.91	3.48	0.10	22.39	Min CU	--	--	2.04	6.53	5.74	1.02	--	16.02	
CIR	--	--	0.00	0.00	0.95	3.90	0.59	0.00	10.41	CIR	--	--	0.00	1.20	2.73	0.00	--	7.25	
DRY BEANS																			
Mean CU	--	--	--	2.98	8.05	7.04	1.58	--	19.69	Mean CU	--	--	0.82	4.13	8.21	7.76	2.37	--	23.32
CIR	--	--	--	0.82	5.96	5.50	0.65	--	13.02	CIR	--	--	0.04	1.65	6.12	6.22	1.24	--	15.32
Max CU	--	--	--	3.79	9.56	8.91	1.96	--	23.41	Max CU	--	--	1.07	5.26	9.74	9.82	2.94	--	27.58
CIR	--	--	--	2.58	8.71	8.09	1.93	--	21.30	Min CU	--	--	0.60	4.05	8.89	9.00	2.91	--	18.96
Min CU	--	--	--	2.04	6.53	5.74	1.02	--	16.02	CIR	--	--	0.50	2.82	6.66	6.33	1.52	--	18.96
CIR	--	--	--	0.00	1.33	3.32	0.00	--	8.58	SUGAR BEETS									
Mean CU	0.43	2.61	5.55	8.52	7.90	4.84	--	29.91	Mean CU	--	--	0.82	4.13	8.21	7.76	2.37	--	23.32	
CIR	0.00	0.59	2.93	6.43	6.36	3.56	--	19.98	CIR	--	--	0.04	3.42	7.07	10.11	10.00	6.01	--	34.80
Max CU	0.58	3.42	7.07	10.11	10.00	6.01	--	34.80	Max CU	--	--	2.82	5.86	9.26	9.18	5.98	--	26.50	
CIR	0.04	2.82	5.86	9.26	9.18	5.98	--	24.40	Min CU	0.24	1.59	3.80	6.91	6.45	3.12	--	24.40		
Min CU	0.24	1.59	3.80	6.91	6.45	3.12	--	12.00	CIR	0.00	0.00	1.59	3.44	0.16	--	12.00			

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

ALTA										ARVADA									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		
ALFALFA HAY																			
Mean	CU	0.26	4.13	5.61	6.38	4.84	2.45	--	23.70	Mean	CU	3.25	5.55	6.93	8.74	7.42	4.09	0.72	36.93
CIR	0.00	1.59	3.40	5.05	3.36	1.07	--	--	14.44	CIR	1.92	3.67	4.24	7.67	6.63	3.18	0.18	27.66	
Max	CU	0.45	6.04	7.27	7.53	5.88	3.39	--	28.00	Max	CU	4.57	7.52	8.81	10.20	9.45	5.98	0.93	40.77
CIR	0.00	5.40	7.16	7.43	5.37	3.04	--	--	23.06	CIR	3.80	6.68	8.27	10.02	9.16	5.09	0.92	35.39	
Min	CU	0.12	2.67	3.99	5.20	3.90	1.62	--	21.05	Min	CU	2.42	4.56	5.68	6.71	6.01	2.38	0.39	32.95
CIR	0.00	0.00	0.00	1.84	0.00	0.00	--	--	7.82	CIR	0.47	1.11	1.09	3.44	2.92	0.92	0.00	19.43	
PASTURE GRASS AND GRASS HAY																			
Mean	CU	0.25	3.93	5.35	6.07	4.62	2.34	--	22.59	Mean	CU	3.08	5.29	6.61	8.33	7.04	3.89	0.69	35.14
CIR	0.00	1.43	3.15	4.74	3.14	0.99	--	--	13.44	CIR	1.74	3.41	3.92	7.26	6.26	2.98	0.16	25.89	
Max	CU	0.43	5.76	6.94	7.17	5.61	3.24	--	26.69	Max	CU	4.32	7.17	8.40	9.72	8.97	5.68	0.89	38.81
CIR	0.00	5.12	6.83	7.07	5.11	2.90	--	--	21.78	CIR	3.57	6.33	7.86	9.55	8.68	4.83	0.87	33.43	
Min	CU	0.11	2.55	3.81	4.95	3.72	1.54	--	20.06	Min	CU	2.29	4.35	5.42	6.40	5.70	2.26	0.37	31.36
CIR	0.00	0.00	0.00	1.58	0.00	0.00	--	--	6.93	CIR	0.32	0.84	0.81	3.13	2.61	0.80	0.00	17.83	
MOUNTAIN MEADOW HAY																			
Mean	CU	0.29	4.44	6.38	7.54	5.85	2.97	--	27.51	Mean	CU	3.22	4.98	6.17	7.52	6.51	3.94	0.71	33.26
CIR	0.00	1.84	4.14	6.21	4.35	1.43	--	--	17.96	CIR	1.88	3.10	3.48	6.46	5.72	3.03	0.17	23.99	
Max	CU	0.49	6.50	8.27	8.91	7.11	4.11	--	32.48	Max	CU	4.52	6.75	7.84	8.78	8.29	5.75	0.92	36.74
CIR	0.00	5.84	8.16	8.81	6.57	3.69	--	--	27.52	CIR	3.76	5.91	7.30	8.61	8.00	4.89	0.90	31.36	
Min	CU	0.13	2.87	4.54	6.15	4.72	1.96	--	24.54	Min	CU	2.39	4.09	5.05	5.78	5.27	2.29	0.38	29.64
CIR	0.00	0.00	0.00	2.84	0.11	0.00	--	--	10.81	CIR	0.44	0.50	0.41	2.51	2.18	0.83	0.00	16.11	
LAWN GRASS																			
Mean	CU	0.27	3.97	5.46	6.25	5.29	3.05	--	24.32	Mean	CU	0.84	4.49	7.39	6.22	--	--	--	18.94
CIR	0.00	1.47	3.25	4.92	3.80	1.49	--	--	14.91	CIR	0.17	2.60	4.84	5.08	--	--	--	12.70	
Max	CU	0.46	5.81	7.07	7.38	6.43	4.21	--	28.62	Max	CU	1.17	6.12	9.53	7.27	--	--	--	21.24
CIR	0.00	5.18	6.96	7.28	5.90	3.78	--	--	23.68	CIR	1.13	5.28	8.99	7.11	--	--	--	18.85	
Min	CU	0.12	2.57	3.88	5.10	4.27	2.01	--	21.68	Min	CU	0.55	3.52	5.86	4.78	--	--	--	16.97
CIR	0.00	0.00	0.00	1.74	0.00	0.00	--	--	7.90	CIR	0.00	0.01	1.60	1.51	--	--	--	6.61	
SPRING GRAINS																			
Mean	CU	--	2.21	5.76	6.48	1.57	--	--	16.01	Mean	CU	2.05	5.67	7.20	5.57	--	--	--	20.50
CIR	--	0.37	3.56	5.20	0.45	--	--	--	9.52	CIR	0.95	3.78	4.65	4.44	--	--	--	13.83	
Max	CU	--	3.25	7.54	7.60	1.92	--	--	19.49	Max	CU	2.87	7.73	9.29	6.51	--	--	--	22.89
CIR	--	2.71	7.43	7.50	1.63	--	--	--	16.46	CIR	2.79	6.89	8.75	6.36	--	--	--	19.77	
Min	CU	--	1.44	4.14	5.25	1.27	--	--	14.06	Min	CU	1.35	4.44	5.72	4.28	--	--	--	18.03
CIR	--	0.00	0.00	1.89	0.00	--	--	--	5.16	CIR	0.00	1.28	1.43	1.01	--	--	--	8.55	
CORN																			
Mean	CU	--	--	1.23	3.76	8.08	8.83	4.95	0.27	27.27									
CIR	--	0.22	1.48	6.94	8.02	4.06	0.03	20.91											
Max	CU	--	1.67	4.85	9.44	11.38	7.17	0.35	30.91										
CIR	--	1.17	4.31	9.27	11.09	6.14	0.35	27.24											
Min	CU	--	0.96	2.98	6.21	7.23	2.85	0.15	23.43										
CIR	--	0.00	0.00	2.94	4.15	1.39	0.00	13.60											

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

BASIN										BEDFORD								
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		
ALFALFA HAY									ALFALFA HAY									
Mean	CU	3.91	6.24	7.86	8.74	7.23	3.96	1.05	CU	0.34	4.11	5.48	6.16	4.70	1.25	--	22.22	
CIR	3.17	5.05	6.78	8.41	6.90	3.61	0.73	34.59	CIR	0.01	1.83	3.65	5.03	3.28	0.31	--	14.30	
Max	CU	5.28	7.89	9.91	10.04	8.57	5.06	1.48	CU	0.52	5.47	6.99	7.03	5.63	1.73	--	25.47	
CIR	5.20	7.89	9.39	10.02	8.05	5.06	1.28	38.58	CIR	0.11	4.73	6.48	7.00	4.86	1.41	--	19.01	
Min	CU	2.57	4.78	5.71	6.87	6.14	2.46	0.62	CU	0.17	2.98	3.97	5.12	4.12	0.80	--	19.18	
CIR	0.79	2.61	1.15	6.87	5.69	1.78	0.00	29.12	CIR	0.00	0.00	0.00	2.47	1.20	0.00	--	9.44	
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY									
Mean	CU	3.70	5.95	7.50	8.33	6.86	3.76	1.00	CU	0.33	3.91	5.23	5.87	4.48	1.19	--	21.18	
CIR	2.96	4.76	6.42	8.00	6.53	3.41	0.68	32.72	CIR	0.00	1.66	3.41	4.74	3.06	0.28	--	13.34	
Max	CU	4.99	7.53	9.45	9.58	8.13	4.80	1.41	CU	0.50	5.21	6.67	6.69	5.37	1.65	--	24.28	
CIR	4.91	7.53	8.93	9.56	7.63	4.80	1.22	36.57	CIR	0.09	4.48	6.16	6.66	4.62	1.33	--	17.89	
Min	CU	2.43	4.56	5.45	6.55	5.83	2.33	0.59	CU	0.17	2.84	3.79	4.87	3.93	0.76	--	18.28	
CIR	0.65	2.35	0.89	6.55	5.35	1.65	0.00	27.39	CIR	0.00	0.00	0.00	2.21	0.98	0.00	--	8.67	
LAWN GRASS									MOUNTAIN MEADOW HAY									
Mean	CU	3.87	5.60	7.00	7.52	6.34	3.81	1.04	CU	0.37	4.42	6.24	7.29	5.68	1.52	--	25.71	
CIR	3.13	4.41	5.91	7.19	6.01	3.46	0.71	30.79	CIR	0.01	2.10	4.38	6.16	4.26	0.45	--	17.56	
Max	CU	5.22	7.09	8.82	8.65	7.52	4.87	1.45	CU	0.57	5.88	7.95	8.31	6.81	2.10	--	29.45	
CIR	5.14	7.09	8.30	8.63	7.06	4.87	1.26	34.59	CIR	0.16	5.13	7.44	8.28	5.94	1.78	--	22.76	
Min	CU	2.54	4.30	5.08	5.91	5.39	2.36	0.61	CU	0.19	3.20	4.51	6.05	4.98	0.97	--	22.21	
CIR	0.76	2.05	0.52	5.91	4.88	1.68	0.00	25.65	CIR	0.00	0.00	0.00	3.47	2.18	0.00	--	12.42	
SPRING GRAINS									LAWN GRASS									
Mean	CU	0.97	5.09	8.49	6.28	--	--	--	CU	0.35	3.95	5.33	6.04	5.13	1.55	--	22.54	
CIR	0.39	3.90	7.40	5.93	--	--	--	17.61	CIR	0.01	1.70	3.51	4.92	3.71	0.48	--	14.48	
Max	CU	1.30	6.43	10.73	7.16	--	--	--	CU	0.54	5.26	6.79	6.90	5.16	2.15	--	25.75	
CIR	1.22	6.43	10.21	7.14	--	--	--	21.07	CIR	0.13	4.53	6.28	6.87	5.34	1.83	--	19.38	
Min	CU	0.64	3.90	6.18	4.90	--	--	--	CU	0.18	2.87	3.86	5.02	4.50	0.99	--	19.42	
CIR	0.00	1.58	1.62	4.90	--	--	--	11.15	CIR	0.00	0.00	0.00	2.37	1.63	0.00	--	9.73	
WINTER WHEAT									SPRING GRAINS									
Mean	CU	2.38	6.41	8.28	5.62	--	--	--	Mean	CU	--	2.21	5.65	6.27	1.53	--	--	15.68
CIR	1.66	5.23	7.19	5.28	--	--	--	19.35	CIR	--	0.37	3.73	5.16	0.43	--	--	9.85	
Max	CU	3.20	8.11	10.45	6.42	--	--	--	Max	CU	--	2.94	7.24	7.11	1.83	--	--	18.51
CIR	3.12	8.11	9.93	6.40	--	--	--	23.35	CIR	--	2.27	6.73	7.07	1.39	--	--	12.90	
Min	CU	1.56	4.92	6.03	4.39	--	--	--	Min	CU	--	1.60	4.11	5.17	1.32	--	--	13.52
CIR	0.00	2.77	1.47	4.39	--	--	--	12.80	CIR	--	0.00	0.00	2.52	0.00	--	--	6.54	
CORN									WINTER WHEAT									
Mean	CU	--	1.39	4.32	8.15	8.70	4.83	0.24	Mean	CU	0.49	3.18	5.85	6.03	1.36	--	--	16.99
CIR	--	0.48	3.26	7.81	8.38	4.47	0.08	24.46	CIR	0.02	1.05	3.93	4.92	0.34	--	--	10.47	
Max	CU	--	1.75	5.45	9.30	10.31	6.07	0.33	Max	CU	0.76	4.23	7.50	6.84	1.64	--	--	20.07
CIR	--	1.75	4.93	9.28	9.69	6.07	0.29	30.43	CIR	0.35	3.53	6.99	6.80	1.23	--	--	13.71	
Min	CU	--	1.06	3.14	6.36	7.40	2.95	0.14	Min	CU	0.25	2.30	4.26	4.97	1.18	--	--	14.43
CIR	--	0.00	0.00	6.36	7.03	2.27	0.00	20.43	CIR	0.00	0.00	0.00	2.31	0.00	--	--	7.30	
DRY BEANS									CU and CIR are in inches.									
Mean	CU	--	--	3.17	8.48	7.23	1.41	--	20.28									
CIR	--	--	2.13	8.13	6.91	1.05	--	--	18.23									
Max	CU	--	--	4.00	9.67	8.57	1.77	--	22.38									
CIR	--	--	3.49	9.65	8.05	1.77	--	--	21.14									
Min	CU	--	--	2.31	6.61	6.14	0.86	--	18.22									
CIR	--	--	0.00	6.61	5.69	0.18	--	--	15.80									
POTATOES																		
Mean	CU	--	0.87	4.39	8.64	7.97	2.11	--	23.97									
CIR	--	0.17	3.33	8.30	7.65	1.75	--	--	21.19									
Max	CU	--	1.10	5.54	9.86	9.44	2.65	--	26.31									
CIR	--	1.10	5.02	9.84	8.87	2.65	--	--	24.28									
Min	CU	--	0.66	3.20	6.74	6.77	1.29	--	21.66									
CIR	--	0.00	0.00	6.74	6.36	0.61	--	--	18.16									
SUGAR BEETS																		
Mean	CU	0.44	2.77	5.90	8.97	8.11	4.32	--	30.52									
CIR	0.07	1.61	4.82	8.62	7.79	3.96	--	--	26.86									
Max	CU	0.59	3.51	7.45	10.23	9.61	5.44	--	33.44									
CIR	0.51	3.51	6.93	10.21	9.03	5.44	--	--	29.70									
Min	CU	0.29	2.13	4.30	7.00	6.90	2.64	--	26.92									
CIR	0.00	0.00	0.00	7.00	6.49	1.96	--	--	22.55									

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

BIG PINEY									BORDER								
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON
ALFALFA HAY									ALFALFA HAY								
Mean CU	--	3.47	5.44	6.11	4.48	1.30	--	20.71	Mean CU	0.62	4.52	5.90	6.62	5.02	2.20	--	24.76
CIR	--	2.24	4.51	5.24	3.61	0.61	--	16.00	CIR	0.11	3.03	4.58	5.65	4.05	1.07	--	18.34
Max CU	--	4.64	6.74	6.95	5.17	1.84	--	22.70	Max CU	1.00	5.52	7.35	7.56	5.78	2.82	--	27.02
CIR	--	4.27	6.59	6.16	4.83	1.60	--	20.14	CIR	0.95	5.15	7.04	7.05	5.52	2.57	--	23.17
Min CU	--	2.52	3.99	4.75	3.85	0.84	--	18.23	Min CU	0.33	3.03	4.27	5.51	4.31	1.43	--	20.81
CIR	--	0.00	1.73	3.73	0.97	0.00	--	12.19	CIR	0.00	0.00	0.65	3.16	0.90	0.00	--	11.68
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY								
Mean CU	--	3.28	5.19	5.82	4.28	1.25	--	19.73	Mean CU	0.59	4.31	5.63	6.30	4.78	2.10	--	23.60
CIR	--	2.07	4.27	4.95	3.41	0.58	--	15.06	CIR	0.11	2.82	4.31	5.33	3.82	1.00	--	17.24
Max CU	--	4.39	6.43	6.63	4.93	1.76	--	21.63	Max CU	0.95	5.26	7.01	7.20	5.51	2.70	--	25.75
CIR	--	4.04	6.28	5.84	4.59	1.53	--	19.08	CIR	0.90	4.90	6.70	6.70	5.25	2.45	--	21.93
Min CU	--	2.39	3.81	4.52	3.68	0.80	--	17.37	Min CU	0.32	2.89	4.08	5.25	4.11	1.36	--	19.83
CIR	--	0.00	1.55	3.47	0.80	0.00	--	11.44	CIR	0.00	0.00	0.46	2.87	0.69	0.00	--	10.66
MOUNTAIN MEADOW HAY									MOUNTAIN MEADOW HAY								
Mean CU	--	4.16	6.19	7.09	5.29	1.56	--	24.05	Mean CU	0.68	4.86	6.71	7.83	6.07	2.67	--	28.68
CIR	--	2.91	5.26	6.22	4.43	0.79	--	19.37	CIR	0.13	3.36	5.39	6.86	5.10	1.43	--	22.11
Max CU	--	5.56	7.66	8.07	6.10	2.20	--	26.48	Max CU	1.09	5.94	8.36	8.94	6.99	3.42	--	31.26
CIR	--	5.16	7.51	7.28	5.76	1.93	--	23.92	CIR	1.04	5.56	8.05	8.36	6.72	3.13	--	27.33
Min CU	--	3.02	4.54	5.51	4.56	1.00	--	21.29	Min CU	0.36	3.26	4.86	6.52	5.21	1.73	--	24.11
CIR	--	0.00	2.28	4.60	1.69	0.00	--	14.77	CIR	0.00	0.11	1.24	4.25	1.83	0.00	--	14.91
LAWN GRASS									LAWN GRASS								
Mean CU	--	3.72	5.29	5.88	4.78	1.59	--	21.07	Mean CU	0.63	4.35	5.73	6.50	5.48	2.73	--	25.31
CIR	--	2.48	4.36	5.01	3.92	0.81	--	16.39	CIR	0.12	2.86	4.41	5.53	4.52	1.48	--	18.77
Max CU	--	4.98	6.55	6.69	5.52	2.25	--	23.16	Max CU	1.02	5.31	7.14	7.42	6.32	3.51	--	27.57
CIR	--	4.59	6.40	5.90	5.18	1.98	--	20.60	CIR	0.97	4.95	6.83	6.91	6.05	3.21	--	23.69
Min CU	--	2.70	3.88	4.57	4.12	1.02	--	18.58	Min CU	0.34	2.92	4.16	5.41	4.71	1.77	--	21.21
CIR	--	0.00	1.62	3.52	1.24	0.00	--	12.41	CIR	0.00	0.00	0.54	3.05	1.31	0.00	--	11.95
SPRING GRAINS									SPRING GRAINS								
Mean CU	--	2.08	5.60	6.09	1.42	--	--	15.09	Mean CU	--	2.42	6.05	6.70	1.62	--	--	16.79
CIR	--	1.06	4.69	5.25	0.67	--	--	11.47	CIR	--	1.18	4.73	5.77	0.85	--	--	12.57
Max CU	--	2.78	6.98	6.89	1.64	--	--	17.00	Max CU	--	2.97	7.62	7.63	1.88	--	--	19.61
CIR	--	2.50	6.83	6.10	1.39	--	--	14.57	CIR	--	2.67	7.31	7.18	1.68	--	--	17.47
Min CU	--	1.51	4.14	4.70	1.23	--	--	13.31	Min CU	--	1.63	4.43	5.57	1.40	--	--	14.24
CIR	--	0.00	1.88	3.68	0.00	--	--	8.29	CIR	--	0.00	0.81	3.22	0.00	--	--	7.14

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

BOYSEN DAM

	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON
ALFALFA HAY								
Mean	CU 3.87	6.21	7.99	9.00	7.54	4.22	0.80	39.57
CIR	2.55	4.41	6.56	8.39	6.97	3.37	0.28	32.52
Max	CU 5.37	8.14	10.13	10.35	8.80	5.38	1.07	45.75
CIR	5.33	7.52	9.88	10.25	8.71	5.33	1.01	41.04
Min	CU 2.59	4.28	5.57	7.31	6.36	2.64	0.45	34.86
CIR	0.00	0.00	0.78	6.11	4.35	0.16	0.00	23.23
PASTURE GRASS AND GRASS HAY								
Mean	CU 3.66	5.92	7.62	8.59	7.15	4.01	0.76	37.66
CIR	2.36	4.13	6.19	7.97	6.59	3.16	0.26	30.64
Max	CU 5.08	7.77	9.66	9.87	8.35	5.11	1.02	43.55
CIR	5.04	7.15	9.42	9.78	8.26	5.06	0.96	38.84
Min	CU 2.44	4.08	5.31	6.97	6.04	2.51	0.43	33.17
CIR	0.00	0.00	0.52	5.77	4.01	0.01	0.00	21.90
LAWN GRASS								
Mean	CU 3.83	5.58	7.11	7.75	6.61	4.07	0.79	35.68
CIR	2.51	3.81	5.68	7.13	6.05	3.21	0.28	28.66
Max	CU 5.31	7.31	9.01	8.91	7.72	5.17	1.06	41.26
CIR	5.27	6.69	8.79	8.82	7.63	5.12	0.99	36.55
Min	CU 2.56	3.84	4.96	6.30	5.58	2.54	0.45	31.44
CIR	0.00	0.00	0.17	5.10	3.53	0.05	0.00	20.16
SPRING GRAINS								
Mean	CU 0.96	5.05	8.62	6.47	--	--	--	21.11
CIR	0.26	3.33	7.20	5.83	--	--	--	16.61
Max	CU 1.33	6.64	10.96	7.54	--	--	--	25.13
CIR	1.29	6.02	10.70	7.30	--	--	--	21.58
Min	CU 0.64	3.48	6.03	5.21	--	--	--	17.06
CIR	0.00	0.00	1.24	3.90	--	--	--	9.10
WINTER WHEAT								
Mean	CU 2.35	6.37	8.40	5.80	--	--	--	22.93
CIR	1.17	4.59	6.98	5.16	--	--	--	17.88
Max	CU 3.26	8.37	10.68	6.76	--	--	--	27.28
CIR	3.22	7.75	10.43	6.53	--	--	--	23.75
Min	CU 1.57	4.40	5.88	4.67	--	--	--	18.68
CIR	0.00	0.00	1.09	3.31	--	--	--	10.02
CORN								
Mean	CU --	1.38	4.38	8.41	9.06	5.12	0.26	28.57
CIR	--	0.28	3.01	7.76	8.52	4.31	0.04	23.95
Max	CU --	1.81	5.57	9.79	10.60	6.45	0.34	32.49
CIR	--	1.43	5.41	9.49	10.51	6.40	0.31	30.90
Min	CU --	0.95	3.07	6.77	7.66	3.17	0.14	24.77
CIR	--	0.00	0.00	5.57	5.72	0.76	0.00	16.79
DRY BEANS								
Mean	CU --	--	3.22	8.74	7.53	1.49	--	20.95
CIR	--	--	1.88	8.10	6.98	0.82	--	17.81
Max	CU --	--	4.09	10.18	8.80	1.88	--	23.81
CIR	--	--	3.95	9.87	8.71	1.83	--	22.80
Min	CU --	--	2.25	7.04	6.36	0.92	--	18.32
CIR	--	--	0.00	5.84	4.35	0.00	--	12.87
POTATOES								
Mean	CU --	0.86	4.46	8.91	8.30	2.24	--	24.73
CIR	--	0.10	3.08	8.27	7.75	1.50	--	20.71
Max	CU --	1.13	5.67	10.38	9.70	2.82	--	28.13
CIR	--	0.83	5.50	10.06	9.61	2.77	--	26.65
Min	CU --	0.59	3.12	7.18	7.01	1.39	--	21.53
CIR	--	0.00	0.00	5.98	5.04	0.00	--	15.66
SUGAR BEETS								
Mean	CU 0.44	2.76	5.99	9.25	8.45	4.59	--	31.42
CIR	0.05	1.21	4.58	8.61	7.91	3.78	--	26.13
Max	CU 0.60	3.62	7.62	10.77	9.88	5.78	--	35.65
CIR	0.56	3.06	7.42	10.44	9.79	5.73	--	34.09
Min	CU 0.29	1.90	4.19	7.45	7.14	2.84	--	27.19
CIR	0.00	0.00	0.00	6.25	5.17	0.39	--	19.00

CU and CIR are in inches.

BUFFALO

	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON
ALFALFA HAY								
Mean	CU 2.78	5.24	6.62	8.14	6.89	3.89	0.99	34.54
CIR	1.47	3.08	4.39	6.91	6.01	2.55	0.36	24.77
Max	CU 4.42	6.85	9.60	9.66	8.49	4.98	1.35	41.69
CIR	4.16	6.33	8.54	9.43	8.06	4.63	1.35	34.52
Min	CU 1.77	3.80	4.88	6.48	5.37	2.24	0.58	29.62
CIR	0.00	0.00	0.00	4.25	2.92	0.00	0.00	16.06
PASTURE GRASS AND GRASS HAY								
Mean	CU 2.53	4.99	6.32	7.76	6.54	3.68	0.95	32.88
CIR	1.35	2.87	4.11	6.53	5.65	2.37	0.32	23.20
Max	CU 4.18	6.53	9.16	9.21	8.05	4.73	1.29	39.69
CIR	3.92	6.03	8.10	8.98	7.64	4.38	1.29	32.50
Min	CU 1.67	3.63	4.66	6.18	5.10	2.13	0.55	28.19
CIR	0.00	0.00	0.00	3.95	2.64	0.00	0.00	14.63
LAWN GRASS								
Mean	CU 2.75	4.70	5.89	7.01	6.04	3.74	0.98	31.12
CIR	1.45	2.61	3.71	5.77	5.16	2.42	0.34	21.47
Max	CU 4.37	6.15	8.55	8.31	7.45	4.79	1.33	37.54
CIR	4.11	5.65	7.49	8.08	7.06	4.44	1.33	30.37
Min	CU 1.75	3.41	4.35	5.58	4.71	2.16	0.57	26.69
CIR	0.00	0.00	0.00	3.35	2.24	0.00	0.00	13.32
SPRING GRAINS								
Mean	CU 0.82	4.27	7.13	5.77	--	--	--	17.95
CIR	0.14	2.25	5.00	4.55	--	--	--	11.88
Max	CU 1.32	5.67	10.40	6.88	--	--	--	23.53
CIR	1.06	5.10	9.34	6.65	--	--	--	18.43
Min	CU 0.52	3.10	5.29	4.27	--	--	--	14.93
CIR	0.00	0.00	0.00	1.37	--	--	--	4.66
WINTER WHEAT								
Mean	CU 2.00	5.39	6.95	5.17	--	--	--	19.47
CIR	0.88	3.26	4.83	3.95	--	--	--	12.85
Max	CU 3.23	7.15	10.13	6.17	--	--	--	25.55
CIR	2.97	6.52	9.07	5.94	--	--	--	20.31
Min	CU 1.28	3.91	5.15	3.82	--	--	--	15.76
CIR	0.00	0.00	0.00	0.92	--	--	--	5.12
CORN								
Mean	CU --	1.17	3.63	7.49	8.25	4.67	0.25	25.48
CIR	--	0.10	1.83	6.27	7.37	3.41	0.03	19.02
Max	CU --	1.55	5.29	8.94	10.22	5.97	0.34	29.62
CIR	--	1.15	4.23	8.71	9.74	5.61	0.34	25.22
Min	CU --	0.84	2.69	5.54	6.47	2.69	0.15	21.30
CIR	--	0.00	0.00	2.64	4.04	0.00	0.00	12.78

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

Casper										Centennial									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		
ALFALFA HAY -----										ALFALFA HAY -----									
Mean CU	3.23	5.31	7.36	8.72	7.51	4.46	1.02	37.62	Mean CU	0.25	4.25	5.75	6.52	5.18	3.09	--	25.13		
CIR	1.79	3.31	5.95	7.54	6.84	3.55	0.36	29.33	CIR	0.01	2.78	4.40	4.82	3.91	1.99	--	18.02		
Max CU	4.89	7.00	9.95	9.88	8.56	5.52	1.39	43.46	Max CU	0.35	5.49	7.22	7.68	6.14	3.88	--	29.80		
CIR	4.54	6.70	9.74	9.48	8.40	5.34	1.38	39.66	CIR	0.17	4.99	6.80	7.36	5.69	3.77	--	25.72		
Min CU	2.08	4.00	5.42	6.81	6.02	2.86	0.47	31.82	Min CU	0.14	2.42	3.49	5.32	4.20	1.98	--	21.05		
CIR	0.00	0.00	1.42	5.85	3.36	0.00	0.00	19.21	CIR	0.00	0.00	0.00	1.31	1.72	0.00	--	12.23		
PASTURE GRASS AND GRASS HAY -----									PASTURE GRASS AND GRASS HAY -----										
Mean CU	3.06	5.06	7.02	8.32	7.13	4.24	0.97	35.81	Mean CU	0.23	4.05	5.49	6.22	4.90	2.92	--	23.90		
CIR	1.63	3.08	5.61	7.14	6.45	3.33	0.33	27.58	CIR	0.01	2.58	4.14	4.52	3.63	1.84	--	16.82		
Max CU	4.63	6.67	8.50	9.42	8.12	5.24	1.33	41.36	Max CU	0.34	5.23	6.88	7.32	5.81	3.67	--	28.34		
CIR	4.28	6.37	9.29	9.03	7.96	5.06	1.32	37.57	CIR	0.15	4.73	6.46	7.00	5.36	3.56	--	24.26		
Min CU	1.97	3.81	5.17	6.50	5.71	2.71	0.45	30.29	Min CU	0.13	2.31	3.33	5.07	3.98	1.87	--	20.01		
CIR	0.00	0.00	1.16	5.48	3.05	0.00	0.00	17.65	CIR	0.00	0.00	0.00	1.00	1.48	0.00	--	11.24		
LAWN GRASS -----									LAWN GRASS -----										
Mean CU	3.20	4.77	6.55	7.51	6.59	4.28	1.00	33.92	Mean CU	0.27	4.66	6.54	7.50	5.73	3.44	--	28.18		
CIR	1.76	2.80	5.14	6.33	5.81	3.39	0.35	25.68	CIR	0.01	3.18	5.17	5.80	4.46	2.31	--	21.04		
Max CU	4.84	6.29	8.86	8.51	7.51	5.31	1.37	39.21	Max CU	0.39	6.02	8.21	8.83	6.78	4.31	--	33.49		
CIR	4.49	5.99	8.66	8.13	7.35	5.13	1.36	35.42	CIR	0.20	5.52	7.79	8.51	6.34	4.20	--	29.36		
Min CU	2.08	3.59	4.82	5.87	5.28	2.75	0.47	28.56	Min CU	0.15	2.66	3.97	6.11	4.65	2.20	--	23.63		
CIR	0.00	0.00	0.81	4.72	2.62	0.00	0.00	15.88	CIR	0.00	0.20	0.00	2.31	2.19	0.00	--	14.77		
SPRING GRAINS -----									SPRING GRAINS -----										
Mean CU	0.80	4.28	7.92	6.26	--	--	--	19.26	Mean CU	0.26	4.17	5.59	6.22	5.18	3.52	--	24.96		
CIR	0.09	2.39	6.53	5.08	--	--	--	14.09	CIR	0.01	2.70	4.24	4.52	3.91	2.40	--	17.87		
Max CU	1.21	5.70	10.77	7.25	--	--	--	23.61	Max CU	0.37	5.39	7.02	7.32	6.14	4.42	--	29.63		
CIR	0.86	5.40	10.54	6.98	--	--	--	20.83	CIR	0.18	4.89	6.60	7.00	5.69	4.31	--	25.53		
Min CU	0.51	3.26	5.58	4.86	--	--	--	15.66	Min CU	0.14	2.38	3.39	5.07	4.20	2.25	--	21.01		
CIR	0.00	0.00	1.88	2.69	--	--	--	7.36	CIR	0.00	0.00	0.00	1.00	1.72	0.00	--	11.72		
WINTER WHEAT -----									CU and CIR are in inches.										
Mean CU	1.96	5.40	7.72	5.61	--	--	--	20.69	Mean CU	--	2.28	5.88	6.40	1.52	--	--	16.04		
CIR	0.77	3.43	6.33	4.43	--	--	--	14.96	CIR	--	0.88	4.52	4.72	0.45	--	--	10.46		
Max CU	2.98	7.19	10.50	6.49	--	--	--	25.49	Max CU	--	3.01	7.48	7.54	1.83	--	--	19.57		
CIR	2.63	6.89	10.27	6.22	--	--	--	22.71	CIR	--	2.52	7.06	7.22	1.38	--	--	16.61		
Min CU	1.26	4.11	5.44	4.35	--	--	--	16.68	Min CU	--	1.33	3.62	5.22	1.25	--	--	12.73		
CIR	0.00	0.00	1.73	2.09	--	--	--	8.29	CIR	--	0.00	0.00	1.18	0.00	--	--	6.54		
CORN -----																			
Mean CU	--	1.17	4.03	8.13	9.02	5.41	0.30	28.06											
CIR	--	0.16	2.69	6.95	8.36	4.55	0.04	22.75											
Max CU	--	1.56	5.48	9.41	10.30	6.62	0.41	30.87											
CIR	--	1.26	5.35	9.14	10.14	6.44	0.41	27.78											
Min CU	--	0.89	2.84	6.31	7.25	3.43	0.14	23.85											
CIR	--	0.00	0.00	4.40	4.59	0.51	0.00	15.10											

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

CHEYENNE										CHUGWATER									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		
ALFALFA HAY										ALFALFA HAY									
Mean	CU 2.56	5.59	6.97	7.92	6.65	4.13	1.27	35.23	Mean	CU 3.67	6.00	7.35	8.23	6.96	4.36	0.08	36.55		
CIR	1.36	3.24	4.92	5.92	5.04	2.98	0.65	24.32	CIR	2.16	3.30	5.19	6.25	5.52	3.28	0.00	25.62		
Max	CU 3.48	7.12	8.71	9.49	8.42	5.29	1.78	41.40	Max	CU 4.95	7.37	9.42	9.77	8.70	5.45	0.12	41.82		
CIR	2.71	6.91	7.47	8.67	8.28	4.99	1.48	32.93	CIR	4.40	7.04	8.33	8.67	8.55	5.11	0.10	34.67		
Min	CU 1.35	3.20	4.86	6.34	5.39	2.72	0.55	28.59	Min	CU 2.30	3.72	5.30	6.62	5.47	3.02	0.04	29.35		
CIR	0.00	0.00	1.25	1.97	1.06	0.00	0.00	15.26	CIR	0.00	0.00	1.89	2.21	1.07	0.00	0.00	16.61		
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY										
Mean	CU 2.42	5.33	6.65	7.55	6.31	3.93	1.21	33.53	Mean	CU 3.47	5.72	7.02	7.85	6.61	4.15	0.08	34.78		
CIR	1.23	2.99	4.60	5.55	4.70	2.78	0.60	22.66	CIR	1.98	3.05	4.85	5.87	5.16	3.07	0.00	23.90		
Max	CU 3.29	6.79	8.31	9.05	7.99	5.02	1.70	39.41	Max	CU 4.68	7.02	8.99	9.32	8.26	5.18	0.11	39.81		
CIR	2.53	6.58	7.08	8.23	7.85	4.74	1.41	31.04	CIR	4.13	6.71	7.92	8.25	8.11	4.84	0.09	32.67		
Min	CU 1.28	3.05	4.64	6.05	5.12	2.58	0.53	27.22	Min	CU 2.18	3.54	5.05	6.31	5.19	2.87	0.04	27.93		
CIR	0.00	0.00	0.98	1.64	0.67	0.00	0.00	14.14	CIR	0.00	0.00	1.63	1.90	0.76	0.00	0.00	14.99		
LAWN GRASS									LAWN GRASS										
Mean	CU 2.53	5.02	6.20	6.82	5.84	3.98	1.25	31.76	Mean	CU 3.63	5.39	6.54	7.09	6.11	4.20	0.08	32.93		
CIR	1.33	2.68	4.16	4.82	4.23	2.83	0.63	20.88	CIR	2.13	2.77	4.38	5.11	4.67	3.12	0.00	22.10		
Max	CU 3.44	6.39	7.75	8.17	7.39	5.09	1.75	37.35	Max	CU 4.90	6.62	8.38	8.42	7.64	5.24	0.12	37.54		
CIR	2.68	6.18	6.54	7.35	7.25	4.80	1.46	29.07	CIR	4.35	6.31	7.36	7.42	7.49	4.91	0.10	30.57		
Min	CU 1.34	2.87	4.33	5.46	4.73	2.62	0.54	25.68	Min	CU 2.28	3.34	4.71	5.70	4.80	2.90	0.04	26.36		
CIR	0.00	0.00	0.61	1.00	0.12	0.00	0.00	12.70	CIR	0.00	0.00	1.26	1.29	0.31	0.00	0.00	13.36		
SPRING GRAINS									SPRING GRAINS										
Mean	CU 0.86	4.48	7.48	5.62	--	--	--	18.52	Mean	CU 0.96	4.83	7.89	5.85	--	--	--	19.48		
CIR	0.15	2.20	5.35	3.66	--	--	--	11.47	CIR	0.13	2.33	5.70	3.78	--	--	--	11.97		
Max	CU 1.19	5.80	9.43	6.77	--	--	--	22.40	Max	CU 1.31	6.00	10.20	6.97	--	--	--	22.70		
CIR	0.67	5.59	8.17	5.95	--	--	--	16.67	CIR	0.76	5.71	9.05	6.09	--	--	--	17.69		
Min	CU 0.46	2.60	5.26	4.52	--	--	--	14.72	Min	CU 0.61	3.03	5.71	4.72	--	--	--	15.41		
CIR	0.00	0.00	0.10	0.00	--	--	--	5.77	CIR	0.00	0.00	1.41	0.31	--	--	--	5.52		
WINTER WHEAT									WINTER WHEAT										
Mean	CU 2.11	5.65	7.29	5.04	--	--	--	20.17	Mean	CU 2.36	6.09	7.69	5.24	--	--	--	21.31		
CIR	0.98	3.33	5.16	3.09	--	--	--	12.66	CIR	1.01	3.42	5.50	3.17	--	--	--	13.09		
Max	CU 2.92	7.31	9.19	6.07	--	--	--	24.58	Max	CU 3.22	7.57	9.94	6.24	--	--	--	25.01		
CIR	2.24	7.10	7.93	5.25	--	--	--	18.72	CIR	2.67	7.24	8.81	5.42	--	--	--	20.11		
Min	CU 1.13	3.29	5.13	4.05	--	--	--	15.38	Min	CU 1.50	3.82	5.57	4.23	--	--	--	16.38		
CIR	0.00	0.00	0.00	0.00	--	--	--	6.21	CIR	0.00	0.00	1.27	0.00	--	--	--	6.05		
CORN									CORN										
Mean	CU --	1.22	3.80	7.30	7.92	4.99	0.30	25.58	Mean	CU --	1.32	4.01	7.59	8.30	5.25	0.33	26.74		
CIR	--	0.17	1.80	5.34	6.30	3.88	0.05	17.65	CIR	--	0.14	1.92	5.52	6.89	4.20	0.03	18.61		
Max	CU --	1.58	4.79	8.79	10.14	6.35	0.42	30.22	Max	CU --	1.64	5.18	9.05	10.48	6.54	0.44	31.59		
CIR	--	1.37	3.67	7.97	10.00	6.03	0.33	24.49	CIR	--	1.43	4.38	8.00	10.33	6.19	0.38	24.15		
Min	CU --	0.71	2.68	5.87	6.41	3.26	0.13	21.05	Min	CU --	0.83	2.90	6.13	6.58	3.62	0.15	22.76		
CIR	--	0.00	0.00	1.45	2.63	0.00	0.00	12.07	CIR	--	0.00	0.00	1.72	2.34	0.00	0.00	11.34		
DRY BEANS									DRY BEANS										
Mean	CU --	--	2.79	7.59	6.58	1.46	--	18.46	Mean	CU --	--	2.94	7.90	6.90	1.53	--	19.24		
CIR	--	--	0.94	5.63	4.96	0.63	--	12.30	CIR	--	--	1.04	5.83	5.49	0.74	--	13.09		
Max	CU --	--	3.52	9.14	8.42	1.85	--	22.26	Max	CU --	--	3.80	9.41	8.70	1.91	--	23.17		
CIR	--	--	2.46	8.32	8.28	1.67	--	17.86	CIR	--	--	3.09	8.33	8.55	1.73	--	17.70		
Min	CU --	--	1.96	6.10	5.32	0.95	--	15.06	Min	CU --	--	2.13	6.38	5.47	1.06	--	16.23		
CIR	--	--	0.00	1.71	1.06	0.00	--	6.67	CIR	--	--	0.00	1.97	1.07	0.00	--	5.60		
POTATOES									POTATOES										
Mean	CU --	0.76	3.87	7.74	7.25	2.18	--	21.84	Mean	CU --	0.82	4.08	8.05	7.60	2.30	--	22.80		
CIR	--	0.06	1.85	5.78	5.63	1.21	--	14.65	CIR	--	0.05	1.98	5.98	6.19	1.40	--	15.55		
Max	CU --	0.99	4.87	9.32	9.28	2.78	--	26.23	Max	CU --	1.02	5.27	9.59	9.59	2.86	--	27.35		
CIR	--	0.81	3.74	8.50	9.14	2.56	--	20.96	CIR	--	0.83	4.46	8.50	9.44	2.60	--	20.73		
Min	CU --	0.44	2.72	6.22	5.86	1.43	--	17.83	Min	CU --	0.52	2.95	6.50	6.03	1.58	--	19.24		
CIR	--	0.00	0.00	1.84	1.85	0.00	--	8.94	CIR	--	0.00	0.00	2.09	1.71	0.00	--	8.32		
SUGAR BEETS									SUGAR BEETS										
Mean	CU 0.39	2.45	5.20	8.03	7.38	4.48	--	27.99	Mean	CU 0.44	2.63	5.48	8.35	7.74	4.71	--	29.27		
CIR	0.00	0.61	3.11	6.07	5.77	3.37	--	19.09	CIR	0.00	0.68	3.30	6.28	6.33	3.66	--	20.22		
Max	CU 0.54	3.16	6.55	9.67	9.45	5.68	--	33.10	Max	CU 0.60	3.27	7.08	9.96	9.77	5.86	--	34.59		
CIR	0.09	2.95	5.37	8.85	9.31	5.38	--	26.39	CIR	0.06	3.04	6.15	8.86	9.62	5.51	--	26.29		
Min	CU 0.21	1.42	3.66	6.46	5.97	2.92	--	22.91	Min	CU 0.28	1.65	3.97	6.74	6.14	3.24	--	24.81		
CIR	0.00	0.00	0.00	2.10	2.01	0.00	--	12.27	CIR	0.00	0.00	0.00	2.33	1.83	0.00	--	12.65		

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

	CODY								COLONY											
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON				
ALFALFA HAY																				
Mean	CU	2.72	5.24	6.66	8.28	6.88	3.84	0.92	34.94	CU	3.07	5.53	6.92	8.83	7.54	4.60	1.38	37.87		
CIR		1.82	3.53	5.02	7.24	6.09	2.85	0.40	27.75		CIR	1.60	3.28	4.32	7.29	6.26	3.28	0.56	26.58	
Max	CU	4.01	7.20	9.35	9.99	8.49	5.02	1.24	42.47	CU	4.31	7.72	10.18	10.52	8.67	5.37	1.84	45.32		
CIR		3.78	6.63	8.91	9.39	8.47	4.71	1.13	36.47		CIR	4.06	6.47	7.74	10.09	8.09	5.11	1.60	37.68	
Min	CU	1.74	3.64	3.83	6.39	5.06	2.38	0.53	30.73	CU	1.96	4.45	5.42	7.20	6.49	3.15	0.85	34.27		
CIR		0.00	0.00	0.48	3.73	2.79	0.00	0.00	21.07		CIR	0.00	0.00	0.00	4.20	3.34	0.00	0.00	19.63	
PASTURE GRASS AND GRASS HAY																				
Mean	CU	2.57	5.00	6.35	7.89	6.53	3.65	0.88	33.25		PASTURE GRASS AND GRASS HAY									
CIR		1.67	3.30	4.71	6.85	5.74	2.66	0.38	26.09		Mean	CU	2.90	5.27	6.60	8.42	7.16	4.37	1.32	36.04
Max	CU	3.79	6.87	8.92	9.53	8.05	4.77	1.18	40.42		CIR	1.45	3.04	4.01	6.88	5.88	3.06	0.51	24.83	
CIR		3.57	6.31	8.48	8.93	8.03	4.46	1.07	34.42		Max	CU	4.08	7.36	9.71	10.03	8.23	5.10	1.75	43.14
Min	CU	1.64	3.47	3.65	6.10	4.80	2.26	0.51	29.24		CIR	3.83	6.11	7.27	9.62	7.67	4.85	1.51	35.58	
CIR		0.00	0.00	0.30	3.44	2.52	0.00	0.00	19.68		Min	CU	1.85	4.24	5.17	6.87	6.16	2.99	0.81	32.62
LAWN GRASS																				
Mean	CU	2.69	4.70	5.93	7.13	6.04	3.70	0.91	31.44		LAWN GRASS									
CIR		1.79	3.01	4.28	6.09	5.25	2.71	0.39	24.28		Mean	CU	3.04	4.97	6.15	7.60	6.62	4.43	1.36	34.17
Max	CU	3.97	6.47	8.32	8.60	7.45	4.84	1.22	38.26		CIR	1.57	2.75	3.60	6.06	5.34	3.12	0.54	22.98	
CIR		3.74	5.93	7.88	8.00	7.43	4.53	1.11	32.25		Max	CU	4.27	6.94	9.06	9.06	7.61	5.17	1.81	40.86
Min	CU	1.72	3.27	3.40	5.51	4.44	2.29	0.52	27.59		CIR	4.01	5.69	6.62	8.66	7.08	4.91	1.57	33.44	
CIR		0.00	0.00	0.05	2.85	2.13	0.00	0.00	17.85		Min	CU	1.94	4.00	4.82	6.20	5.69	3.03	0.84	30.93
SPRING GRAINS																				
Mean	CU	0.79	4.27	7.15	5.90	--	--	--	18.22		SPRING GRAINS									
CIR		0.20	2.62	5.57	4.88	--	--	--	13.57		Mean	CU	0.88	4.50	7.48	6.29	--	--	--	19.16
Max	CU	1.15	5.87	10.12	7.12	--	--	--	23.78		CIR	0.20	2.34	4.86	4.76	--	--	--	12.16	
CIR		1.02	5.36	9.68	6.52	--	--	--	20.19		Max	CU	1.24	6.29	11.02	7.50	--	--	--	25.17
Min	CU	0.50	2.97	4.14	4.56	--	--	--	15.32		CIR	1.15	5.04	8.58	7.13	--	--	--	19.87	
CIR		0.00	0.00	0.79	1.90	--	--	--	8.16		Min	CU	0.56	3.63	5.86	5.14	--	--	--	16.51
WINTER WHEAT																				
Mean	CU	1.93	5.38	6.97	5.28	--	--	--	19.69		WINTER WHEAT									
CIR		1.05	3.71	5.39	4.26	--	--	--	14.69		Mean	CU	2.16	5.68	7.30	5.64	--	--	--	20.78
Max	CU	2.83	7.40	9.87	6.38	--	--	--	25.88		CIR	0.89	3.42	4.68	4.10	--	--	--	13.09	
CIR		2.64	6.82	9.43	5.78	--	--	--	22.31		Max	CU	3.04	7.94	10.74	6.72	--	--	--	27.26
Min	CU	1.22	3.74	4.04	4.08	--	--	--	16.20		CIR	2.85	6.69	8.30	6.37	--	--	--	21.98	
CIR		0.00	0.00	0.69	1.42	--	--	--	9.53		Min	CU	1.38	4.57	5.72	4.60	--	--	--	17.89
CORN																				
Mean	CU	--	1.16	3.63	7.66	8.23	4.66	0.28	25.81		CORN									
CIR		--	0.23	2.14	6.64	7.43	3.71	0.05	20.91		Mean	CU	--	1.23	3.81	8.17	9.09	5.52	0.29	28.11
Max	CU	--	1.60	5.15	9.25	10.22	6.03	0.38	29.75		CIR	--	0.09	1.57	6.64	7.80	4.19	0.02	20.31	
CIR		--	1.38	4.71	8.65	10.20	5.73	0.35	24.83		Max	CU	--	1.72	5.60	9.74	10.44	6.44	0.39	32.01
Min	CU	--	0.81	2.11	5.92	6.09	2.85	0.16	21.43		CIR	--	0.70	3.68	9.33	9.78	6.17	0.22	25.51	
CIR		--	0.00	0.00	3.26	3.89	0.00	0.00	15.55		Min	CU	--	0.99	2.98	6.67	7.81	3.78	0.18	25.83
DRY BEANS																				
Mean	CU	--	--	2.67	7.97	6.84	1.36	--	18.83		Mean	CU	--	0.00	3.57	4.80	0.29	0.00	16.15	
CIR		--	--	1.27	6.95	6.04	0.65	--	15.32		CIR	--	--	--	--	--	--	--		
Max	CU	--	--	3.78	9.62	8.49	1.76	--	22.11		Max	CU	--	--	--	--	--	--	--	
CIR		--	--	3.34	9.02	8.47	1.56	--	19.06		CIR	--	--	--	--	--	--	--		
Min	CU	--	--	1.54	6.16	5.06	0.83	--	15.95		Min	CU	--	--	--	--	--	--	--	
CIR		--	--	0.00	3.50	2.79	0.00	--	10.26		CIR	--	--	--	--	--	--	--		
POTATOES																				
Mean	CU	--	0.73	3.70	8.12	7.54	2.04	--	22.14		POTATOES									
CIR		--	0.10	2.20	7.10	6.73	1.23	--	17.84		Mean	CU	--	--	--	--	--	--	--	
Max	CU	--	1.00	5.23	9.80	9.35	2.64	--	26.12		CIR	--	--	--	--	--	--	--		
CIR		--	0.83	4.79	9.20	9.33	2.42	--	22.11		Max	CU	--	--	--	--	--	--	--	
Min	CU	--	0.51	2.14	6.28	5.57	1.25	--	18.50		CIR	--	--	--	--	--	--	--		
CIR		--	0.00	0.00	3.62	3.34	0.00	--	12.63		Min	CU	--	--	--	--	--	--	--	
SUGAR BEETS																				
Mean	CU	0.36	2.33	4.97	8.42	7.68	4.17	--	28.08		SUGAR BEETS									
CIR		0.04	0.88	3.41	7.40	6.88	3.23	--	22.40		Mean	CU	--	--	--	--	--	--	--	
Max	CU	0.52	3.20	7.04	10.18	9.53	5.40	--	33.12		CIR	--	--	--	--	--	--	--		
CIR		0.42	2.83	6.60	9.58	9.51	5.12	--	27.68		Max	CU	--	--	--	--	--	--	--	
Min	CU	0.23	1.62	2.88	6.51	5.68	2.55	--	24.85		CIR	--	--	--	--	--	--	--		
CIR		0.00	0.00	0.00	3.85	3.45	0.00	--	16.38		Min	CU	--	--	--	--	--	--	--	

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

DOUBLE FOUR RANCH										DOUGLAS										
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON			
ALFALFA HAY																				
Mean	CU	1.48	4.47	6.34	7.54	6.45	3.91	1.10	31.38	Mean	CU	2.58	5.38	7.23	8.65	7.40	4.47	0.87	36.67	
CIR	0.41	2.01	4.06	5.64	5.16	2.73	0.44		20.78	CIR	1.22	3.18	5.52	7.16	6.67	3.54	0.31	27.81		
Max	CU	2.12	5.79	8.73	8.87	7.89	4.73	1.49	35.86	Max	CU	3.51	6.92	9.53	9.91	8.45	5.56	1.16	41.47	
CIR	1.77	5.48	7.30	8.55	7.70	4.61	1.44		29.49	CIR	3.34	6.55	8.93	9.70	8.27	5.39	0.99	36.82		
Min	CU	0.74	2.89	4.27	5.88	5.06	2.69	0.49	25.55	Min	CU	1.62	4.07	5.23	7.62	5.85	2.84	0.44	33.45	
CIR	0.00	0.00	0.00	2.65	2.09	0.00	0.00		12.14	CIR	0.00	0.00	0.00	3.34	3.62	0.00	0.00	20.76		
PASTURE GRASS AND GRASS HAY																				
Mean	CU	1.40	4.25	6.05	7.20	6.12	3.71	1.05	29.88	Mean	CU	2.44	5.13	6.90	8.25	7.02	4.25	0.83	34.90	
CIR	0.37	1.84	3.78	5.30	4.83	2.54	0.41		19.38	CIR	1.11	2.94	5.20	6.76	6.29	3.32	0.29	26.11		
Max	CU	2.02	5.51	8.33	8.47	7.49	4.50	1.43	34.14	Max	CU	3.32	6.60	9.09	9.46	8.02	5.28	1.10	39.48	
CIR	1.67	5.22	6.90	8.15	7.31	4.38	1.38		27.78	CIR	3.15	6.23	8.49	9.25	7.84	5.12	0.95	34.83		
Min	CU	0.70	2.75	4.08	5.61	4.80	2.56	0.47	24.33	Min	CU	1.53	3.88	4.99	7.27	5.55	2.70	0.42	31.84	
CIR	0.00	0.00	0.00	2.32	1.83	0.00	0.00		11.14	CIR	0.00	0.00	0.00	2.97	3.27	0.00	0.00	19.33		
MOUNTAIN MEADOW HAY																				
Mean	CU	1.64	4.90	7.21	8.51	6.78	3.86	0.81	33.81	Mean	CU	2.55	4.83	6.44	7.45	6.49	4.31	0.86	33.00	
CIR	0.51	2.38	4.91	6.61	5.48	2.68	0.25		23.20	CIR	1.20	2.66	4.74	5.96	5.76	3.38	0.30	24.20		
Max	CU	2.36	6.35	9.93	10.01	8.29	4.67	1.10	38.56	Max	CU	3.48	6.22	8.48	8.54	7.41	5.35	1.14	37.33	
CIR	2.00	6.02	8.50	9.69	8.09	4.56	1.05		32.31	CIR	3.31	5.85	7.88	8.33	7.24	5.19	0.98	32.69		
Min	CU	0.82	3.17	4.86	6.63	5.31	2.66	0.36	27.58	Min	CU	1.60	3.66	4.66	6.57	5.13	2.73	0.44	30.07	
CIR	0.00	0.00	0.00	3.57	2.34	0.00	0.00		13.98	CIR	0.00	0.00	0.00	2.23	2.78	0.00	0.00	17.95		
LAWN GRASS																				
Mean	CU	1.53	4.38	6.16	7.06	6.12	3.95	1.12	30.43	Mean	CU	0.85	4.35	7.88	6.20	--	--	--	19.27	
CIR	0.44	1.94	3.90	5.16	4.83	2.77	0.46		19.83	CIR	0.19	2.27	6.21	4.77	--	--	--	13.63		
Max	CU	2.20	5.68	8.49	8.30	7.49	4.79	1.52	34.79	Max	CU	1.15	5.64	10.31	7.07	--	--	--	23.10	
CIR	1.85	5.38	7.06	7.98	7.31	4.67	1.47		28.43	CIR	0.98	5.27	9.71	6.86	--	--	--	19.83		
Min	CU	0.76	2.84	4.16	5.50	4.80	2.72	0.50	24.68	Min	CU	0.53	3.32	5.66	5.44	--	--	--	15.65	
CIR	0.00	0.00	0.00	2.19	1.83	0.00	0.00		5.44	CIR	0.00	0.00	0.34	1.06	--	--	--	5.50		
SPRING GRAINS																				
Mean	CU	--	2.42	6.54	7.32	1.82	--	--	18.14	Mean	CU	2.08	5.48	7.68	5.55	--	--	--	20.79	
CIR	--	0.60	4.30	5.43	0.75	--	--		11.23	CIR	0.91	3.34	6.01	4.12	--	--	--	14.53		
Max	CU	--	3.17	9.05	8.55	2.23	--	--	20.43	Max	CU	2.81	7.12	10.05	6.33	--	--	--	25.07	
CIR	--	2.97	7.62	8.23	2.13	--	--		15.67	CIR	2.64	6.75	9.45	6.12	--	--	--	21.80		
Min	CU	--	1.58	4.43	5.66	1.43	--	--	14.74	Min	CU	1.30	4.18	5.52	4.87	--	--	--	17.06	
CIR	--	0.00	0.00	2.39	0.00	--	--		5.44	CIR	0.00	0.00	0.19	0.47	--	--	--	5.85		
CORN																				
Mean	CU	--	--	1.19	4.01	8.05	8.86	5.43	0.30	27.82	Mean	CU	0.85	4.35	7.88	6.20	--	--	--	19.27
CIR	--	--	0.14	2.45	6.62	8.10	4.55	0.05		CIR	0.19	2.27	6.21	4.77	--	--	--	13.63		
Max	CU	--	--	1.54	5.24	9.18	10.17	6.67	0.40	30.09	Max	CU	--	--	--	--	--	--	--	20.09
CIR	--	--	1.17	4.66	8.97	9.98	6.47	0.34		CIR	--	--	--	--	--	--	--	26.38		
Min	CU	--	--	0.90	2.88	7.06	7.04	3.41	0.15	24.14	Min	CU	--	--	0.00	0.00	2.75	5.02	0.00	0.00
CIR	--	--	0.00	0.00	0.00	0.00	0.00			CIR	--	--	0.00	0.00	3.04	3.62	0.00	0.00		
DRY BEANS																				
Mean	CU	--	--	2.94	8.37	7.36	1.58	--		Mean	CU	--	--	2.94	8.37	7.36	1.58	--	20.26	
CIR	--	--	1.51	6.94	6.60	0.89	--		16.03	CIR	--	--	1.51	6.94	6.60	0.89	--	16.03		
Max	CU	--	--	3.85	9.55	8.45	1.95	--		Max	CU	--	--	3.85	9.55	8.45	1.95	--	22.02	
CIR	--	--	3.42	9.34	8.27	1.89	--		19.89	CIR	--	--	3.42	9.34	8.27	1.89	--	19.89		
Min	CU	--	--	2.11	7.34	5.85	0.99	--		Min	CU	--	--	2.11	7.34	5.85	0.99	--	17.85	
CIR	--	--	0.00	3.04	3.62	0.00	--		10.94	CIR	--	--	0.00	3.04	3.62	0.00	--	10.94		

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

DUBOIS									ENCAMPMENT								
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON
ALFALFA HAY									ALFALFA HAY								
Mean	CU 0.14	4.09	5.54	6.16	4.72	1.57	--	21.84	Mean	CU 0.99	4.47	6.16	7.16	6.03	3.51	--	28.33
CIR	0.02	2.88	4.16	5.22	3.96	0.75	--	16.36	CIR	0.14	2.88	4.85	5.78	4.64	2.38	--	20.63
Max	CU 0.24	5.52	7.68	7.57	5.57	2.17	--	23.65	Max	CU 1.37	5.99	8.21	8.41	7.19	4.28	--	31.56
CIR	0.16	5.12	7.55	7.25	5.39	2.07	--	20.37	CIR	0.95	5.49	7.64	7.78	6.42	4.28	--	25.20
Min	CU 0.06	2.97	3.49	4.84	3.81	0.88	--	18.90	Min	CU 0.51	3.08	4.43	6.05	4.56	2.48	--	23.43
CIR	0.00	0.00	0.00	2.69	1.97	0.00	--	11.05	CIR	0.00	0.00	1.28	3.70	1.84	0.00	--	12.91
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY								
Mean	CU 0.13	3.89	5.28	5.87	4.50	1.50	--	20.82	Mean	CU 0.94	4.25	5.87	6.83	5.71	3.32	--	26.93
CIR	0.01	2.69	3.91	4.92	3.74	0.70	--	15.38	CIR	0.13	2.68	4.57	5.44	4.32	2.20	--	19.28
Max	CU 0.23	5.26	7.33	7.21	5.31	2.07	--	22.54	Max	CU 1.30	5.70	7.83	8.02	6.81	4.05	--	30.00
CIR	0.16	4.86	7.20	6.89	5.13	1.97	--	19.27	CIR	0.89	5.20	7.26	7.39	6.04	4.05	--	23.72
Min	CU 0.06	2.83	3.33	4.60	3.63	0.84	--	18.02	Min	CU 0.48	2.93	4.22	5.76	4.32	2.35	--	22.27
CIR	0.00	0.00	0.00	2.45	1.79	0.00	--	10.30	CIR	0.00	0.00	1.06	3.35	1.55	0.00	--	11.80
MOUNTAIN MEADOW HAY									MOUNTAIN MEADOW HAY								
Mean	CU 0.15	4.39	6.30	7.29	5.71	1.90	--	25.32	Mean	CU 1.10	4.90	7.00	8.23	6.67	3.90	--	31.82
CIR	0.02	3.18	4.90	6.34	4.95	1.02	--	19.72	CIR	0.18	3.29	5.70	6.85	5.28	2.76	--	24.01
Max	CU 0.26	5.94	8.74	8.95	6.74	2.63	--	27.41	Max	CU 1.52	6.57	9.34	9.67	7.96	4.76	--	35.43
CIR	0.18	5.54	8.61	8.63	6.56	2.51	--	24.12	CIR	1.10	6.07	8.77	9.04	7.19	4.76	--	28.95
Min	CU 0.06	3.19	3.97	5.72	4.61	1.07	--	22.02	Min	CU 0.56	3.37	5.03	6.95	5.04	2.76	--	26.32
CIR	0.00	0.00	0.00	3.57	2.81	0.00	--	13.77	CIR	0.00	0.00	1.94	4.80	2.41	0.00	--	15.90
LAWN GRASS									LAWN GRASS								
Mean	CU 0.14	3.93	5.39	6.04	5.16	1.95	--	22.24	Mean	CU 1.03	4.38	5.99	6.83	6.03	4.00	--	28.26
CIR	0.02	2.73	4.01	5.10	4.40	1.06	--	16.68	CIR	0.15	2.80	4.68	5.44	4.64	2.86	--	20.52
Max	CU 0.25	5.31	7.47	7.43	6.09	2.70	--	24.03	Max	CU 1.42	5.88	7.98	8.02	7.19	4.88	--	31.44
CIR	0.17	4.91	7.34	7.11	5.91	2.58	--	20.80	CIR	1.00	5.38	7.41	7.39	6.42	4.88	--	25.07
Min	CU 0.06	2.86	3.39	4.74	4.16	1.10	--	19.40	Min	CU 0.53	3.02	4.30	5.76	4.56	2.83	--	23.35
CIR	0.00	0.00	0.00	2.59	2.34	0.00	--	11.56	CIR	0.00	0.00	1.15	3.35	1.84	0.00	--	12.59
SPRING GRAINS									SPRING GRAINS								
Mean	CU --	2.18	5.69	6.25	1.53	--	--	15.53	Mean	CU --	2.44	6.38	7.12	1.79	--	--	17.75
CIR	--	1.04	4.36	5.32	0.83	--	--	11.39	CIR	--	1.04	5.08	5.78	0.58	--	--	12.45
Max	CU --	2.97	7.97	7.64	1.81	--	--	20.16	Max	CU --	3.28	8.51	8.69	2.14	--	--	19.80
CIR	--	2.57	7.84	7.32	1.63	--	--	18.72	CIR	--	2.78	7.94	8.40	1.59	--	--	15.75
Min	CU --	1.60	3.62	4.88	1.24	--	--	12.62	Min	CU --	1.69	4.59	5.93	1.36	--	--	14.41
CIR	--	0.00	0.00	2.73	0.00	--	--	5.62	CIR	--	0.00	1.46	3.56	0.00	--	--	7.36
WINTER WHEAT									WINTER WHEAT								
Mean	CU 0.49	3.14	5.89	6.01	1.37	--	--	16.63	Mean	CU 0.61	3.50	6.61	6.85	1.60	--	--	19.19
CIR	0.11	1.94	4.56	5.08	0.70	--	--	11.96	CIR	0.06	1.99	5.31	5.51	0.46	--	--	13.30
Max	CU 0.86	4.27	8.25	7.35	1.62	--	--	18.51	Max	CU 0.84	4.72	8.81	8.36	1.91	--	--	21.58
CIR	0.63	3.87	8.12	7.03	1.44	--	--	15.61	CIR	0.66	4.22	8.24	8.07	1.39	--	--	17.12
Min	CU 0.22	2.30	3.74	4.70	1.11	--	--	13.52	Min	CU 0.31	2.43	4.75	5.71	1.21	--	--	15.39
CIR	0.00	0.00	0.00	2.55	0.00	--	--	6.06	CIR	0.00	0.00	1.63	3.28	0.00	--	--	7.93

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

	EVANSTON								FARSON								
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	
ALFALFA HAY									ALFALFA HAY								
Mean CU	0.48	4.35	6.14	7.40	6.16	3.05	--	27.61	Mean CU	0.56	4.07	5.79	6.84	5.19	1.73	--	24.17
CIR	0.08	3.16	5.18	6.64	5.34	2.05	--	22.46	CIR	0.12	2.87	4.71	6.09	4.50	1.10	--	19.46
Max CU	0.83	5.88	8.10	8.58	7.23	3.85	--	31.90	Max CU	0.73	5.35	7.65	7.65	6.05	2.26	--	27.55
CIR	0.83	5.44	8.10	8.46	7.12	3.62	--	30.75	CIR	0.50	5.07	7.65	7.50	5.94	2.26	--	24.61
Min CU	0.21	2.80	4.44	6.01	4.93	2.14	--	22.07	Min CU	0.35	3.01	4.15	5.98	4.30	1.17	--	20.16
CIR	0.00	0.00	1.84	3.63	1.49	0.00	--	14.62	CIR	0.00	0.00	1.15	3.15	2.10	0.00	--	11.15
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY								
Mean CU	0.46	4.14	5.86	7.05	5.83	2.88	--	26.26	Mean CU	0.53	3.88	5.53	6.51	4.95	1.65	--	23.03
CIR	0.07	2.96	4.90	6.29	5.01	1.89	--	21.14	CIR	0.11	2.69	4.44	5.76	4.26	1.03	--	18.35
Max CU	0.79	5.59	7.73	8.18	6.84	3.64	--	30.34	Max CU	0.70	5.10	7.30	7.29	5.77	2.15	--	26.26
CIR	0.79	5.18	7.73	8.06	6.73	3.41	--	29.22	CIR	0.47	4.83	7.30	7.14	5.66	2.15	--	23.35
Min CU	0.20	2.66	4.23	5.73	4.66	2.02	--	20.97	Min CU	0.33	2.87	3.96	5.69	4.10	1.12	--	19.21
CIR	0.00	0.00	1.63	3.33	1.22	0.00	--	13.48	CIR	0.00	0.00	0.94	2.85	1.90	0.00	--	10.30
MOUNTAIN MEADOW HAY									MOUNTAIN MEADOW HAY								
Mean CU	0.53	4.76	6.99	8.51	6.82	3.39	--	31.06	Mean CU	0.61	4.38	6.59	8.08	6.28	2.09	--	28.03
CIR	0.10	3.57	6.02	7.75	5.99	2.36	--	25.85	CIR	0.16	3.16	5.51	7.34	5.59	1.42	--	23.23
Max CU	0.92	6.44	9.21	9.86	8.00	4.28	--	35.87	Max CU	0.80	5.76	8.70	9.05	7.32	2.74	--	31.92
CIR	0.92	5.99	9.21	9.74	7.89	4.05	--	34.64	CIR	0.57	5.46	8.70	8.88	7.21	2.74	--	28.93
Min CU	0.24	3.07	5.05	6.91	5.45	2.36	--	24.82	Min CU	0.38	3.24	4.72	7.07	5.20	1.42	--	23.48
CIR	0.00	0.00	2.50	4.58	2.03	0.00	--	17.52	CIR	0.00	0.00	1.78	4.27	3.00	0.00	--	14.10
LAWN GRASS									LAWN GRASS								
Mean CU	0.50	4.26	5.98	7.05	6.16	3.48	--	27.47	Mean CU	0.57	3.92	5.63	6.70	5.68	2.14	--	24.64
CIR	0.08	3.08	5.01	6.29	5.34	2.44	--	22.30	CIR	0.13	2.72	4.55	5.96	4.98	1.46	--	19.87
Max CU	0.86	5.76	7.88	8.18	7.23	4.39	--	31.64	Max CU	0.75	5.15	7.44	7.51	6.62	2.80	--	28.04
CIR	0.86	5.34	7.88	8.06	7.12	4.16	--	30.46	CIR	0.52	4.88	7.44	7.35	6.51	2.80	--	25.08
Min CU	0.22	2.74	4.31	5.73	4.93	2.44	--	21.99	Min CU	0.36	2.90	4.04	5.86	4.70	1.46	--	20.67
CIR	0.00	0.00	1.71	3.33	1.49	0.00	--	14.41	CIR	0.00	0.00	1.02	3.03	2.50	0.00	--	11.28
SPRING GRAINS									SPRING GRAINS								
Mean CU	--	2.35	6.30	7.25	1.81	--	--	17.74	Mean CU	--	2.16	5.94	6.94	1.67	--	--	16.67
CIR	--	1.20	5.37	6.51	1.04	--	--	14.20	CIR	--	1.15	4.90	6.22	1.04	--	--	13.31
Max CU	--	3.22	8.40	8.42	2.15	--	--	21.33	Max CU	--	2.88	7.93	7.73	1.97	--	--	19.57
CIR	--	2.94	8.40	8.30	2.04	--	--	20.90	CIR	--	2.70	7.93	7.57	1.86	--	--	17.18
Min CU	--	1.53	4.55	5.90	1.47	--	--	14.05	Min CU	--	1.22	4.31	6.04	1.39	--	--	13.68
CIR	--	0.00	2.02	3.51	0.00	--	--	8.16	CIR	--	0.00	1.32	3.21	0.00	--	--	8.09

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

FORT WASHAKIE								GILLETTE									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	
ALFALFA HAY	--								ALFALFA HAY	--							
Mean CU	1.49	4.86	6.46	7.56	6.43	3.39	0.74	30.82	Mean CU	2.48	5.49	6.92	8.64	7.40	4.20	0.93	36.05
CIR	0.26	2.49	4.61	6.77	5.72	2.40	0.24	22.19	CIR	0.97	2.95	4.09	7.04	6.13	2.89	0.23	24.29
Max CU	2.11	6.26	7.71	8.80	7.58	4.25	1.04	33.39	Max CU	3.84	7.58	9.81	10.07	9.25	5.53	1.28	42.02
CIR	1.42	5.53	7.43	8.72	7.52	4.25	0.96	29.85	CIR	3.50	7.34	8.27	9.39	8.96	5.14	1.28	32.31
Min CU	0.79	3.39	4.56	5.84	5.42	2.15	0.31	26.88	Min CU	1.52	4.10	5.10	6.25	5.88	2.32	0.47	30.63
CIR	0.00	0.00	0.00	3.83	3.73	0.07	0.00	15.13	CIR	0.00	0.00	0.00	3.61	2.00	0.00	0.00	13.37
PASTURE GRASS AND GRASS HAY	--								PASTURE GRASS AND GRASS HAY	--							
Mean CU	1.42	4.62	6.16	7.22	6.10	3.22	0.71	29.35	Mean CU	2.34	5.24	6.60	8.24	7.02	3.99	0.88	34.31
CIR	0.23	2.29	4.33	6.42	5.40	2.24	0.22	20.83	CIR	0.87	2.72	3.78	6.64	5.76	2.69	0.21	22.66
Max CU	2.00	5.96	7.35	8.39	7.20	4.04	0.99	31.79	Max CU	3.63	7.23	9.36	9.60	8.78	5.25	1.22	40.00
CIR	1.34	5.27	7.07	8.31	7.14	4.04	0.91	28.29	CIR	3.30	6.99	7.89	8.92	8.50	4.88	1.22	30.32
Min CU	0.75	3.23	4.35	5.57	5.14	2.05	0.30	25.60	Min CU	1.44	3.91	4.87	5.96	5.58	2.20	0.45	29.16
CIR	0.00	0.00	0.00	3.56	3.45	0.00	0.00	14.26	CIR	0.00	0.00	0.00	3.32	1.69	0.00	0.00	12.05
LAWN GRASS	--								LAWN GRASS	--							
Mean CU	1.55	4.76	6.28	7.08	6.10	3.43	0.76	29.85	Mean CU	2.45	4.93	6.16	7.44	6.49	4.04	0.91	32.42
CIR	0.29	2.41	4.44	6.28	5.40	2.45	0.25	21.21	CIR	0.95	2.45	3.36	5.84	5.23	2.74	0.22	20.78
Max CU	2.18	6.14	7.49	8.23	7.20	4.30	1.06	32.35	Max CU	3.79	6.81	8.73	8.67	8.12	5.32	1.26	37.73
CIR	1.48	5.43	7.21	8.15	7.14	4.30	0.97	28.82	CIR	3.46	6.57	7.35	7.99	7.86	4.95	1.26	28.04
Min CU	0.82	3.33	4.43	5.47	5.14	2.18	0.32	25.99	Min CU	1.50	3.69	4.54	5.38	5.16	2.23	0.47	27.56
CIR	0.00	0.00	0.00	3.46	3.45	0.10	0.00	14.42	CIR	0.00	0.00	0.00	2.74	1.27	0.00	0.00	10.48
SPRING GRAINS	--								SPRING GRAINS	--							
Mean CU	--	2.66	6.75	7.34	1.81	--	--	18.51	Mean CU	0.85	4.46	7.41	6.17	--	--	--	18.89
CIR	--	0.78	4.94	6.56	1.18	--	--	13.34	CIR	0.16	2.01	4.61	4.64	--	--	--	11.42
Max CU	--	3.43	7.99	8.47	2.14	--	--	20.34	Max CU	1.31	6.18	10.62	7.18	--	--	--	24.10
CIR	--	3.03	7.71	8.39	2.08	--	--	18.84	CIR	1.04	5.94	8.96	6.84	--	--	--	17.91
Min CU	--	1.86	4.72	5.63	1.53	--	--	15.38	Min CU	0.52	3.34	5.52	4.46	--	--	--	15.79
CIR	--	0.00	0.00	3.62	0.00	--	--	7.46	CIR	0.00	0.00	0.00	1.82	--	--	--	3.89
WINTER WHEAT	--								WINTER WHEAT	--							
Mean CU	0.67	3.82	6.98	7.06	1.62	--	--	20.10	Mean CU	2.08	5.63	7.22	5.53	--	--	--	20.46
CIR	0.06	1.56	5.17	6.29	1.00	--	--	13.95	CIR	0.78	3.08	4.43	4.00	--	--	--	12.29
Max CU	0.93	4.94	8.27	8.15	1.91	--	--	22.15	Max CU	3.22	7.79	10.35	6.43	--	--	--	25.98
CIR	0.93	4.36	7.99	8.07	1.85	--	--	20.25	CIR	2.90	7.55	8.73	6.11	--	--	--	19.79
Min CU	0.34	2.67	4.89	5.41	1.37	--	--	16.59	Min CU	1.27	4.22	5.38	4.00	--	--	--	16.76
CIR	0.00	0.00	0.00	3.40	0.00	--	--	7.01	CIR	0.00	0.00	1.36	--	--	--	3.48	
CORN	--								CORN	--							
Mean CU	--	1.12	3.58	6.99	7.63	4.20	0.21	23.61	Mean CU	--	1.22	3.77	8.02	8.86	5.08	0.28	27.22
CIR	--	0.20	1.96	6.21	6.97	3.32	0.02	18.49	CIR	--	0.11	1.32	6.49	7.56	3.76	0.04	19.27
Max CU	--	1.44	4.24	8.07	9.04	5.69	0.31	26.02	Max CU	--	1.68	5.40	9.32	11.14	6.63	0.39	30.46
CIR	--	1.28	3.96	7.99	8.98	5.65	0.24	23.13	CIR	--	1.44	4.50	8.93	10.84	6.25	0.38	24.33
Min CU	--	0.78	2.51	5.36	6.45	2.55	0.08	20.70	Min CU	--	0.91	2.81	5.79	7.08	2.78	0.14	22.81
CIR	--	0.00	0.00	3.35	4.82	0.47	0.00	11.45	CIR	--	0.00	0.00	3.15	3.21	0.00	0.00	11.78
DRY BEANS	--								CU and CIR are in inches.								
Mean CU	--	2.63	7.27	6.34	1.22	--	--	17.38									
CIR	--	1.14	6.49	5.68	0.62	--	--	13.83									
Max CU	--	3.11	8.39	7.51	1.66	--	--	18.89									
CIR	--	2.88	8.31	7.45	1.65	--	--	17.47									
Min CU	--	1.84	5.57	5.36	0.74	--	--	15.49									
CIR	--	0.00	3.56	3.68	0.00	--	--	9.90									
POTATOES	--																
Mean CU	--	0.70	3.64	7.41	6.99	1.83	--	20.47									
CIR	--	0.08	2.02	6.63	6.32	1.12	--	16.02									
Max CU	--	0.90	4.31	8.55	8.27	2.49	--	22.19									
CIR	--	0.80	4.03	8.47	8.21	2.47	--	20.18									
Min CU	--	0.49	2.55	5.68	5.91	1.12	--	18.47									
CIR	--	0.00	0.00	3.67	4.25	0.00	--	10.77									
SUGAR BEETS	--																
Mean CU	0.33	2.24	4.90	7.69	7.12	3.76	--	25.88									
CIR	0.02	0.58	3.20	6.91	6.45	2.89	--	19.79									
Max CU	0.46	2.89	5.80	8.88	8.43	5.10	--	28.43									
CIR	0.46	2.55	5.52	8.80	8.37	5.07	--	24.66									
Min CU	0.17	1.56	3.43	5.90	6.02	2.29	--	22.75									
CIR	0.00	0.00	0.00	3.89	4.36	0.21	--	12.43									

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

	GLENROCK								GREEN RIVER								
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	
ALFALFA HAY -----									ALFALFA HAY -----								
Mean CU	3.67	5.76	7.77	9.09	7.82	4.75	1.13	39.98	Mean CU	1.73	5.02	7.00	8.33	7.05	4.24	0.36	33.78
CIR	2.12	3.53	5.97	7.86	7.08	3.73	0.40	30.67	CIR	0.98	3.94	6.15	7.66	6.43	3.45	0.07	28.87
Max CU	5.45	7.58	10.44	10.35	9.09	5.89	1.52	46.92	Max CU	2.46	6.38	9.15	9.55	8.15	5.18	0.53	38.46
CIR	5.37	7.13	9.79	9.80	9.07	5.64	1.37	42.91	CIR	2.40	5.99	8.91	9.13	7.87	5.13	0.43	35.72
Min CU	2.47	4.17	5.52	7.21	6.21	3.22	0.65	33.57	Min CU	1.18	3.80	5.24	7.23	5.86	3.01	0.19	28.26
CIR	0.00	0.00	0.00	4.51	4.91	0.00	0.00	21.49	CIR	0.00	0.99	3.51	3.47	3.82	0.74	0.00	22.22
PASTURE GRASS AND GRASS HAY -----									PASTURE GRASS AND GRASS HAY -----								
Mean CU	3.47	5.50	7.41	8.67	7.42	4.51	1.07	38.05	Mean CU	1.64	4.78	6.68	7.94	6.69	4.03	0.35	32.17
CIR	1.93	3.28	5.62	7.44	6.68	3.50	0.37	28.81	CIR	0.90	3.70	5.83	7.28	6.07	3.24	0.07	27.27
Max CU	5.15	7.23	9.96	9.87	8.63	5.59	1.45	44.65	Max CU	2.34	6.07	8.73	9.11	7.74	4.92	0.50	36.62
CIR	5.07	6.78	9.31	9.32	8.60	5.34	1.30	40.65	CIR	2.28	5.70	8.50	8.69	7.46	4.88	0.41	33.91
Min CU	2.33	3.98	5.26	6.88	5.90	3.06	0.62	31.95	Min CU	1.12	3.61	5.00	6.90	5.56	2.86	0.18	26.91
CIR	0.00	0.00	0.00	4.11	4.60	0.00	0.00	19.90	CIR	0.00	0.78	3.26	3.09	3.52	0.58	0.00	20.78
LAWN GRASS -----									LAWN GRASS -----								
Mean CU	3.63	5.18	6.91	7.83	6.86	4.57	1.11	36.09	Mean CU	1.79	4.93	6.81	7.79	6.69	4.29	0.37	32.72
CIR	2.09	2.99	5.13	6.60	6.12	3.56	0.39	26.86	CIR	1.03	3.85	5.95	7.13	6.07	3.50	0.08	27.80
Max CU	5.39	6.81	9.29	8.91	7.98	5.67	1.50	42.38	Max CU	2.55	6.25	8.89	8.94	7.74	5.24	0.53	37.27
CIR	5.31	6.36	8.64	8.38	7.95	5.42	1.34	38.37	CIR	2.49	5.88	8.66	8.52	7.46	5.20	0.43	34.51
Min CU	2.44	3.74	4.91	6.21	5.45	3.10	0.64	30.19	Min CU	1.22	3.72	5.10	6.76	5.56	3.04	0.19	27.32
CIR	0.00	0.00	0.00	3.31	4.15	0.00	0.00	18.11	CIR	0.00	0.90	3.36	2.93	3.52	0.78	0.00	21.23
SPRING GRAINS -----									SPRING GRAINS -----								
Mean CU	0.91	4.65	8.35	6.51	--	--	--	20.39	Mean CU	--	2.75	7.26	8.10	1.99	--	--	20.12
CIR	0.17	2.44	6.55	5.33	--	--	--	14.44	CIR	--	1.65	6.37	7.47	1.34	--	--	16.97
Max CU	1.35	6.18	11.30	7.38	--	--	--	25.30	Max CU	--	3.49	9.48	9.21	2.30	--	--	23.37
CIR	1.27	5.73	10.65	6.85	--	--	--	22.53	CIR	--	3.28	9.23	8.78	2.17	--	--	22.68
Min CU	0.61	3.40	5.95	5.14	--	--	--	16.62	Min CU	--	2.08	5.44	6.96	1.66	--	--	16.61
CIR	0.00	0.00	0.22	2.02	--	--	--	4.98	CIR	--	0.00	3.72	3.16	0.00	--	--	12.05
WINTER WHEAT -----									CU and CIR are in inches.								
Mean CU	2.23	5.86	8.14	5.84	--	--	--	22.04									
CIR	0.86	3.54	6.33	4.65	--	--	--	15.32									
Max CU	3.30	7.79	11.02	6.61	--	--	--	27.50									
CIR	3.22	7.34	10.37	6.09	--	--	--	24.73									
Min CU	1.50	4.28	5.80	4.61	--	--	--	17.83									
CIR	0.00	0.00	0.05	1.38	--	--	--	6.19									
CORN -----																	
Mean CU	--	1.27	4.25	8.46	9.37	5.73	0.33	29.40									
CIR	--	0.11	2.59	7.28	8.59	4.76	0.06	23.38									
Max CU	--	1.68	5.75	9.58	10.95	7.07	0.45	33.01									
CIR	--	1.23	5.10	9.04	10.92	6.82	0.38	29.07									
Min CU	--	0.93	3.02	6.68	7.48	3.87	0.19	25.16									
CIR	--	0.00	0.00	3.87	6.18	0.00	0.00	16.73									
DRY BEANS -----																	
Mean CU	--	--	3.11	8.80	7.78	1.67	--	21.36									
CIR	--	--	1.60	7.61	7.00	0.98	--	17.19									
Max CU	--	--	4.22	9.96	9.09	2.06	--	24.06									
CIR	--	--	3.63	9.42	9.07	1.81	--	21.60									
Min CU	--	--	2.22	6.95	6.21	1.13	--	18.73									
CIR	--	--	0.00	4.19	4.91	0.00	--	13.35									

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

JACKSON									KAYCEE									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	
ALFALFA HAY									ALFALFA HAY									
Mean	CU	0.45	4.18	5.60	6.29	4.72	0.73	--	Mean	CU	2.78	5.33	6.75	8.21	6.98	3.97	1.02	34.96
CIR	0.05	2.39	3.99	5.25	3.54	0.18	--	15.32	CIR	1.38	3.07	4.57	7.11	6.16	2.93	0.35	25.51	
Max	CU	0.67	5.85	7.49	7.36	5.61	0.92	--	Max	CU	4.03	6.97	9.50	9.73	8.24	5.20	1.31	41.55
CIR	0.38	5.20	7.14	7.36	5.16	0.89	--	22.71	CIR	4.02	6.05	9.01	9.12	8.20	4.75	1.31	37.14	
Min	CU	0.24	3.16	3.99	5.50	3.89	0.48	--	Min	CU	1.79	3.92	4.83	6.36	5.72	2.34	0.57	30.65
CIR	0.00	0.00	0.00	2.88	1.07	0.00	--	10.71	CIR	0.00	0.00	0.00	3.27	3.45	0.00	0.00	17.59	
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY									
Mean	CU	0.42	3.99	5.34	5.99	4.50	0.70	--	Mean	CU	2.63	5.09	6.44	7.83	6.62	3.77	0.97	33.28
CIR	0.04	2.20	3.74	4.95	3.32	0.16	--	14.34	CIR	1.24	2.83	4.27	6.73	5.80	2.74	0.32	23.89	
Max	CU	0.54	5.58	7.14	7.01	5.35	0.88	--	Max	CU	3.81	6.64	9.07	9.28	7.82	4.94	1.25	39.55
CIR	0.36	4.93	6.79	7.01	4.90	0.85	--	21.50	CIR	3.80	5.73	8.58	8.67	7.78	4.49	1.25	35.15	
Min	CU	0.23	3.01	3.81	5.24	3.71	0.45	--	Min	CU	1.70	3.74	4.61	6.07	5.43	2.22	0.54	29.18
CIR	0.00	0.00	0.00	2.59	0.88	0.00	--	10.03	CIR	0.00	0.00	0.00	2.98	3.16	0.00	0.00	16.14	
MOUNTAIN MEADOW HAY									LAWN GRASS									
Mean	CU	0.49	4.50	6.37	7.44	5.70	0.89	--	Mean	CU	2.75	4.79	6.01	7.07	6.12	3.82	1.00	31.50
CIR	0.06	2.69	4.75	6.40	4.52	0.24	--	18.59	CIR	1.35	2.55	3.84	5.97	5.30	2.79	0.34	22.11	
Max	CU	0.74	6.29	8.52	8.71	6.78	1.12	--	Max	CU	3.99	6.26	8.46	8.38	7.23	5.01	1.29	37.37
CIR	0.44	5.64	8.17	8.71	6.33	1.09	--	26.77	CIR	3.98	5.35	7.97	7.77	7.19	4.56	1.29	32.96	
Min	CU	0.26	3.40	4.54	6.51	4.70	0.58	--	Min	CU	1.77	3.52	4.30	5.48	5.02	2.25	0.56	27.58
CIR	0.00	0.00	0.00	3.96	1.92	0.00	--	13.08	CIR	0.00	0.00	0.00	2.39	2.75	0.00	0.00	14.66	
LAWN GRASS									SPRING GRAINS									
Mean	CU	0.46	4.03	5.45	6.17	5.15	0.91	--	Mean	CU	0.82	4.32	7.21	5.86	--	--	--	18.20
CIR	0.05	2.24	3.84	5.13	3.97	0.25	--	15.42	CIR	0.11	2.16	5.13	4.76	--	--	--	12.16	
Max	CU	0.69	5.63	7.28	7.22	6.13	1.15	--	Max	CU	1.20	5.68	10.29	6.94	--	--	--	23.39
CIR	0.40	4.98	6.93	7.22	5.68	1.12	--	22.89	CIR	1.20	4.77	9.80	6.33	--	--	--	20.29	
Min	CU	0.25	3.04	3.88	5.40	4.25	0.59	--	Min	CU	0.52	3.19	5.23	4.54	--	--	--	15.21
CIR	0.00	0.00	0.00	2.76	1.45	0.00	--	10.92	CIR	0.00	0.00	0.00	1.45	--	--	--	5.78	
SPRING GRAINS									WINTER WHEAT									
Mean	CU	--	2.25	5.77	6.37	1.53	--	--	Mean	CU	2.02	5.45	7.03	5.25	--	--	--	19.73
CIR	--	0.73	4.18	5.39	0.55	--	--	10.85	CIR	0.77	3.23	4.95	4.15	--	--	--	13.10	
Max	CU	--	3.15	7.76	7.43	1.83	--	--	Max	CU	2.95	7.16	10.03	6.22	--	--	--	25.23
CIR	--	2.62	7.41	7.43	1.49	--	--	17.04	CIR	2.95	6.25	9.54	5.61	--	--	--	22.13	
Min	CU	--	1.70	4.14	5.55	1.27	--	--	Min	CU	1.28	4.03	5.09	4.06	--	--	--	16.24
CIR	--	0.00	0.00	2.93	0.00	--	--	5.87	CIR	0.00	0.00	0.00	0.97	--	--	--	6.51	

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

KEMMERER									LA GRANGE									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		
ALFALFA HAY									ALFALFA HAY									
Mean	CU 0.40	4.09	5.63	6.74	5.16	2.37	--	24.37	Mean	CU 3.50	5.25	6.78	7.97	6.51	4.05	0.87	34.99	
CIR	0.04	2.85	4.53	5.96	4.29	1.43	--	19.08	CIR	1.63	2.55	4.59	5.73	5.15	2.88	0.30	22.58	
Max	CU 0.68	5.29	7.62	7.73	6.38	3.07	--	28.32	Max	CU 4.70	7.08	8.34	9.09	8.01	4.86	1.18	38.20	
CIR	0.60	5.18	7.23	7.40	6.08	3.05	--	24.83	CIR	3.74	6.85	7.54	7.99	7.49	4.76	1.01	30.16	
Min	CU 0.20	2.88	4.26	5.62	4.22	1.61	--	20.34	Min	CU 2.44	3.53	5.21	6.96	5.50	2.89	0.39	32.11	
CIR	0.00	0.29	0.60	3.51	0.73	0.00	--	10.20	CIR	0.00	0.00	1.29	0.32	1.98	0.00	0.00	15.60	
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY									
Mean	CU 0.38	3.90	5.37	6.42	4.92	2.26	--	23.23	Mean	CU 3.31	5.01	6.47	7.60	6.18	3.84	0.83	33.30	
CIR	0.04	2.66	4.27	5.64	4.06	1.34	--	17.97	CIR	1.47	2.33	4.28	5.37	4.82	2.69	0.28	20.98	
Max	CU 0.65	5.04	7.27	7.36	6.08	2.93	--	26.99	Max	CU 4.45	6.76	7.96	8.67	7.60	4.61	1.12	36.37	
CIR	0.57	4.93	6.90	7.04	5.80	2.91	--	23.52	CIR	3.52	6.53	7.18	7.58	7.08	4.51	0.97	28.38	
Min	CU 0.19	2.75	4.07	5.35	4.03	1.54	--	19.38	Min	CU 2.31	3.37	4.97	6.63	5.22	2.74	0.37	30.56	
CIR	0.00	0.14	0.38	3.21	0.51	0.00	--	9.36	CIR	0.00	0.00	1.04	0.00	1.70	0.00	0.00	14.09	
MOUNTAIN MEADOW HAY									LAWN GRASS									
Mean	CU 0.44	4.40	6.40	7.97	6.24	2.87	--	28.36	Mean	CU 3.46	4.72	6.04	6.86	5.72	3.89	0.86	31.59	
CIR	0.05	3.16	5.30	7.19	5.38	1.88	--	23.01	CIR	1.60	2.07	3.85	4.65	4.35	2.74	0.29	19.30	
Max	CU 0.75	5.69	8.67	9.14	7.72	3.72	--	32.81	Max	CU 4.65	6.36	7.42	7.83	7.03	4.67	1.16	34.51	
CIR	0.67	5.58	8.23	8.78	7.36	3.70	--	29.26	CIR	3.70	6.13	6.69	6.75	6.51	4.57	1.00	26.47	
Min	CU 0.22	3.10	4.85	6.64	5.11	1.95	--	23.71	Min	CU 2.41	3.17	4.64	5.99	4.82	2.78	0.38	28.93	
CIR	0.00	0.52	1.25	4.67	1.73	0.00	--	13.10	CIR	0.00	0.00	0.69	0.00	1.30	0.00	0.00	12.59	
LAWN GRASS									SPRING GRAINS									
Mean	CU 0.41	3.94	5.47	6.61	5.64	2.94	--	25.05	Mean	CU 0.87	4.27	7.37	5.68	--	--	--	18.21	
CIR	0.04	2.70	4.37	5.83	4.78	1.94	--	19.70	CIR	0.07	1.54	5.12	3.63	--	--	--	10.25	
Max	CU 0.70	5.09	7.41	7.58	6.97	3.81	--	28.89	Max	CU 1.16	5.77	9.03	6.48	--	--	--	20.91	
CIR	0.62	4.98	7.03	7.25	6.65	3.79	--	25.37	CIR	0.65	5.54	8.23	5.70	--	--	--	16.15	
Min	CU 0.20	2.77	4.14	5.51	4.62	2.00	--	20.88	Min	CU 0.60	2.88	5.64	4.96	--	--	--	15.90	
CIR	0.00	0.17	0.47	3.39	1.18	0.00	--	10.30	CIR	0.00	0.00	1.73	0.00	--	--	--	4.24	
SPRING GRAINS									WINTER WHEAT									
Mean	CU --	2.19	5.81	6.80	1.66	--	--	16.44	Mean	CU 2.13	5.38	7.19	5.09	--	--	--	19.82	
CIR	--	1.06	4.71	6.07	0.88	--	--	12.70	CIR	0.69	2.49	4.93	3.06	--	--	--	11.10	
Max	CU --	2.84	7.90	7.80	2.08	--	--	19.79	Max	CU 2.85	7.28	8.80	5.81	--	--	--	22.68	
CIR	--	2.73	7.49	7.47	1.95	--	--	17.17	CIR	2.13	7.05	8.00	5.08	--	--	--	16.96	
Min	CU --	1.55	4.28	5.67	1.37	--	--	13.62	Min	CU 1.48	3.63	5.50	4.44	--	--	--	17.22	
CIR	--	0.00	0.77	3.57	0.00	--	--	6.76	CIR	0.00	0.00	1.59	0.00	--	--	--	4.44	
WINTER WHEAT									CORN									
Mean	CU 0.49	3.15	6.01	6.55	1.48	--	--	17.65	Mean	CU --	1.16	3.75	7.38	7.88	4.83	0.28	25.27	
CIR	0.08	1.93	4.92	5.81	0.73	--	--	13.43	CIR	--	0.10	1.65	5.27	6.59	3.66	0.03	17.08	
Max	CU 0.82	4.09	8.18	7.50	1.86	--	--	21.42	Max	CU --	1.57	4.59	8.42	9.64	5.83	0.38	27.79	
CIR	0.74	3.98	7.76	7.18	1.74	--	--	18.06	CIR	--	1.34	4.06	7.50	9.12	5.73	0.32	22.77	
Min	CU 0.24	2.23	4.43	5.45	1.23	--	--	14.32	Min	CU --	0.78	2.87	6.44	6.62	3.47	0.12	22.54	
CIR	0.00	0.00	0.95	3.33	0.00	--	--	7.46	CIR	--	0.00	0.00	0.00	3.10	0.00	0.00	10.97	
DRY BEANS									POTATOES									
Mean	CU --	--	2.75	7.67	6.54	1.41	--	18.43	Mean	CU --	0.73	3.81	7.82	7.21	2.12	--	21.71	
CIR	--	--	0.93	5.56	5.25	0.60	--	12.40	CIR	--	0.05	1.70	5.71	5.92	1.13	--	14.43	
Max	CU --	--	3.37	8.76	8.01	1.70	--	20.15	Max	CU --	0.98	4.67	8.93	8.82	2.55	--	23.68	
CIR	--	--	2.93	7.81	7.49	1.60	--	16.79	Min	CU --	0.75	4.13	7.97	8.30	2.45	--	19.54	
Min	CU --	--	2.10	6.70	5.50	1.01	--	16.56	CIR	--	0.00	0.05	1.98	0.00	--	--	6.95	
SUGAR BEETS									POTATOES									
Mean	CU --	0.73	3.81	7.82	7.21	2.12	--	21.71	Mean	CU --	0.73	3.81	7.82	7.21	2.12	--	21.71	
CIR	--	0.05	1.70	5.71	5.92	1.13	--	14.43	CIR	--	0.00	0.43	2.88	6.00	6.05	3.16	--	18.43
Max	CU --	0.98	4.67	8.93	8.82	2.55	--	23.68	Max	CU 0.53	3.15	6.27	9.26	8.99	5.22	--	30.25	
CIR	--	0.75	4.13	7.97	8.30	2.45	--	19.54	Min	CU 0.27	1.57	3.92	7.08	6.17	3.10	--	24.73	
Min	CU --	0.49	2.92	6.83	6.06	1.52	--	19.49	CIR	0.00	0.00	0.00	0.46	2.65	0.00	--	11.78	

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

LAKE YELLOWSTONE									LANDER								
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON
ALFALFA HAY	--								ALFALFA HAY	--							
Mean CU	--	0.89	4.02	5.09	3.92	1.86	--	15.81	Mean CU	2.42	5.36	7.10	8.16	6.81	3.74	0.81	34.40
CIR	--	0.04	2.16	3.61	2.24	0.67	--	8.78	CIR	0.78	2.94	5.72	7.40	6.26	2.80	0.23	26.14
Max CU	--	1.38	5.81	6.62	5.18	2.74	--	19.43	Max CU	3.63	7.10	9.45	9.59	8.09	5.00	1.17	41.33
CIR	--	0.74	4.70	5.70	4.80	2.37	--	14.96	CIR	2.62	6.71	9.25	9.26	8.09	4.99	1.17	36.34
Min CU	--	0.65	2.69	3.68	3.13	1.06	--	13.29	Min CU	1.23	3.48	4.62	6.36	5.64	2.22	0.36	29.05
CIR	--	0.00	0.00	0.43	0.00	0.00	--	4.08	CIR	0.00	0.00	0.00	5.34	3.76	0.00	0.00	16.85
PASTURE GRASS AND GRASS HAY	--								PASTURE GRASS AND GRASS HAY	--							
Mean CU	--	0.85	3.83	4.85	3.74	1.78	--	15.08	Mean CU	2.29	5.11	6.78	7.78	6.47	3.55	0.77	32.74
CIR	--	0.04	2.00	3.37	2.07	0.61	--	8.14	CIR	0.69	2.72	5.41	7.02	5.91	2.62	0.21	24.59
Max CU	--	1.31	5.54	6.31	4.95	2.62	--	18.53	Max CU	3.44	6.77	9.02	9.15	7.68	4.75	1.12	39.34
CIR	--	0.68	4.43	5.41	4.59	2.26	--	14.13	CIR	2.43	6.38	8.82	8.82	7.68	4.74	1.12	34.37
Min CU	--	0.61	2.57	3.50	2.99	1.01	--	12.67	Min CU	1.17	3.32	4.41	6.07	5.35	2.11	0.35	27.65
CIR	--	0.00	0.00	0.21	0.00	0.00	--	3.51	CIR	0.00	0.00	0.00	5.05	3.45	0.00	0.00	15.75
MOUNTAIN MEADOW HAY	--								LAWN GRASS	--							
Mean CU	--	1.07	4.57	5.91	4.64	2.22	--	18.37	Mean CU	2.39	4.81	6.32	7.02	5.98	3.60	0.80	30.92
CIR	--	0.10	2.70	4.43	2.93	0.89	--	10.86	CIR	0.76	2.45	4.97	6.27	5.43	2.67	0.22	22.78
Max CU	--	1.65	6.61	7.69	6.13	3.27	--	22.62	Max CU	3.59	6.37	8.41	8.26	7.10	4.81	1.15	37.18
CIR	--	1.00	5.50	6.70	5.68	2.85	--	18.11	CIR	2.58	6.00	8.21	7.93	7.10	4.80	1.15	32.20
Min CU	--	0.78	3.06	4.27	3.70	1.26	--	15.49	Min CU	1.22	3.12	4.11	5.48	4.95	2.14	0.36	26.03
CIR	--	0.00	0.00	1.16	0.00	0.00	--	6.02	CIR	0.00	0.00	0.00	4.42	3.01	0.00	0.00	14.62
LAWN GRASS	--								SPRING GRAINS	--							
Mean CU	--	0.96	3.91	4.90	4.19	2.28	--	16.20	Mean CU	0.79	4.34	7.64	5.86	--	--	--	18.63
CIR	--	0.06	2.06	3.42	2.50	0.93	--	8.81	CIR	0.02	2.02	6.29	5.10	--	--	--	13.43
Max CU	--	1.48	5.65	6.38	5.54	3.35	--	19.83	Max CU	1.19	5.78	10.23	6.84	--	--	--	23.25
CIR	--	0.84	4.54	5.47	5.13	2.92	--	15.32	CIR	0.30	5.41	10.03	6.51	--	--	--	19.85
Min CU	--	0.69	2.62	3.54	3.35	1.30	--	13.57	Min CU	0.40	2.83	5.00	4.54	--	--	--	14.40
CIR	--	0.00	0.00	0.26	0.00	0.00	--	4.04	CIR	0.00	0.00	0.00	3.33	--	--	--	4.40
CU and CIR are in inches.									WINTER WHEAT								
Mean CU									Mean CU	1.94	5.48	7.45	5.25	--	--	--	20.11
CIR									CIR	0.47	3.02	6.10	4.49	--	--	--	14.08
Max CU									Max CU	2.91	7.29	9.97	6.13	--	--	--	25.19
CIR									CIR	1.93	6.90	9.77	5.80	--	--	--	21.79
Min CU									Min CU	0.99	3.57	4.88	4.06	--	--	--	15.63
CIR									CIR	0.00	0.00	0.00	2.76	--	--	--	4.13
CORN									DRY BEANS								
Mean CU									Mean CU	--	2.85	7.91	6.80	1.33	--	18.89	
CIR									CIR	--	1.69	7.16	6.27	0.67	--	15.78	
Max CU									Max CU	--	3.81	9.24	8.09	1.75	--	22.08	
CIR									Min CU	--	3.61	8.91	8.09	1.74	--	19.97	
Min CU									CIR	--	1.87	6.13	5.64	0.78	--	16.65	
CIR									CIR	--	0.00	5.11	3.76	0.00	--	12.20	
POTATOES									SUGAR BEETS								
Mean CU									Mean CU	--	0.74	3.95	8.06	7.49	2.00	--	22.25
CIR									CIR	--	0.06	2.72	7.31	6.96	1.23	--	18.28
Max CU									Max CU	--	0.99	5.29	9.41	8.92	2.63	--	26.06
CIR									CIR	--	0.70	5.09	9.08	8.92	2.62	--	23.09
Min CU									Min CU	--	0.48	2.59	6.24	6.21	1.17	--	19.49
CIR									CIR	--	0.00	0.00	5.22	4.37	0.00	--	13.79

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

LARAMIE										LOVELL									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		
ALFALFA HAY										ALFALFA HAY									
Mean CU	0.59	4.53	6.18	7.12	5.92	3.60	0.69	28.73	Mean CU	3.38	5.77	7.14	8.80	7.30	3.90	1.06	37.31		
CIR	0.09	3.16	4.93	5.59	4.77	2.71	0.25	21.61	CIR	2.77	4.64	5.93	8.16	6.57	3.17	0.63	31.77		
Max CU	0.81	5.80	7.92	8.58	7.58	4.53	1.00	33.56	Max CU	5.23	7.88	9.85	10.51	8.46	5.06	1.53	43.70		
CIR	0.45	5.75	7.05	8.05	7.03	4.36	0.84	27.80	CIR	5.07	7.56	9.59	10.16	8.40	4.86	1.48	39.59		
Min CU	0.33	2.67	4.28	5.74	4.74	2.33	0.21	23.85	Min CU	2.40	4.21	4.70	7.32	5.54	2.78	0.61	31.47		
CIR	0.00	0.87	1.53	2.37	2.69	0.00	0.00	14.80	CIR	1.12	0.61	1.47	5.17	4.03	0.56	0.00	25.07		
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY										
Mean CU	0.56	4.31	5.90	6.78	5.62	3.42	0.66	27.36	Mean CU	3.20	5.51	6.81	8.39	6.92	3.71	1.01	35.51		
CIR	0.08	2.94	4.65	5.26	4.47	2.53	0.23	20.27	CIR	2.59	4.37	5.61	7.75	6.20	2.98	0.58	29.98		
Max CU	0.77	5.52	7.56	8.18	7.20	4.30	0.95	31.96	Max CU	4.95	7.52	9.40	10.02	8.03	4.80	1.46	41.60		
CIR	0.42	5.47	6.71	7.65	6.65	4.14	0.81	26.23	CIR	4.79	7.20	9.14	9.69	7.97	4.60	1.41	37.49		
Min CU	0.31	2.54	4.09	5.48	4.50	2.22	0.20	22.71	Min CU	2.27	4.02	4.48	6.98	5.25	2.64	0.58	29.95		
CIR	0.00	0.67	1.34	2.11	2.45	0.00	0.00	13.64	CIR	0.99	0.42	1.22	4.83	3.74	0.42	0.00	23.54		
MOUNTAIN MEADOW HAY									LAWN GRASS										
Mean CU	0.65	4.96	7.03	8.04	6.22	3.56	0.51	31.08	Mean CU	3.35	5.18	6.35	7.57	6.40	3.76	1.04	33.62		
CIR	0.12	3.60	5.78	6.50	5.07	2.66	0.14	24.00	CIR	2.74	4.05	5.15	6.94	5.68	3.03	0.61	28.10		
Max CU	0.90	6.36	9.01	9.68	7.97	4.47	0.74	36.35	Max CU	5.18	7.08	8.77	9.05	7.42	4.87	1.50	39.39		
CIR	0.53	6.31	8.06	9.15	7.42	4.30	0.62	30.82	CIR	5.02	6.76	8.51	8.75	7.37	4.67	1.45	35.29		
Min CU	0.36	2.93	4.87	6.48	4.98	2.30	0.15	25.75	Min CU	2.38	3.78	4.18	6.31	4.86	2.68	0.60	28.35		
CIR	0.00	1.27	2.12	3.11	2.93	0.00	0.00	17.04	CIR	1.09	0.18	0.87	4.14	3.33	0.46	0.00	21.94		
LAWN GRASS									SPRING GRAINS										
Mean CU	0.61	4.44	6.01	6.66	5.62	3.65	0.71	27.79	Mean CU	0.86	4.70	7.69	6.28	--	--	--	19.51		
CIR	0.10	3.07	4.76	5.13	4.47	2.75	0.25	20.65	CIR	0.37	3.57	6.50	5.65	--	--	--	16.07		
Max CU	0.84	5.69	7.71	8.03	7.20	4.58	1.02	32.48	Max CU	1.34	6.42	10.67	7.49	--	--	--	24.63		
CIR	0.48	5.64	6.85	7.50	6.65	4.41	0.86	26.64	CIR	1.18	6.10	10.41	7.25	--	--	--	21.73		
Min CU	0.34	2.62	4.17	5.38	4.50	2.36	0.21	23.03	Min CU	0.62	3.43	5.09	5.22	--	--	--	15.14		
CIR	0.00	0.79	1.42	2.01	2.45	0.00	0.00	13.91	CIR	0.00	0.00	1.92	3.04	--	--	--	11.06		
SPRING GRAINS									WINTER WHEAT										
Mean CU	--	2.45	6.37	6.87	1.66	--	--	17.35	Mean CU	2.12	5.93	7.49	5.63	--	--	--	21.15		
CIR	--	1.16	5.15	5.32	0.58	--	--	12.23	CIR	1.52	4.79	6.30	5.00	--	--	--	17.61		
Max CU	--	3.18	8.22	8.26	2.14	--	--	20.81	Max CU	3.29	8.10	10.40	6.71	--	--	--	26.70		
CIR	--	3.15	7.32	7.73	1.59	--	--	17.48	CIR	3.13	7.78	10.14	6.49	--	--	--	23.81		
Min CU	--	1.46	4.44	5.53	1.34	--	--	14.29	Min CU	1.51	4.33	4.96	4.68	--	--	--	16.58		
CIR	--	0.00	1.69	2.16	0.00	--	--	7.70	CIR	0.21	0.73	1.77	2.49	--	--	--	12.51		
CU and CIR are in inches.																			
CORN																			
Mean CU	--	1.28	3.91	8.16	8.73	4.72	0.26	27.03	Mean CU	--	1.28	3.91	8.16	8.73	4.72	0.26	27.03		
CIR	--	0.40	2.75	7.53	8.06	4.05	0.06	22.79	CIR	--	0.40	2.75	7.53	8.06	4.05	0.06	22.79		
Max CU	--	1.75	5.42	9.73	10.18	6.07	0.36	30.57	Max CU	--	1.75	5.42	9.73	10.18	6.07	0.36	30.57		
CIR	--	1.50	5.16	9.41	10.11	5.87	0.32	27.94	CIR	--	1.50	5.16	9.41	10.11	5.87	0.32	27.94		
Min CU	--	0.94	2.59	6.78	6.67	3.34	0.15	23.66	Min CU	--	0.94	2.59	6.78	6.67	3.34	0.15	23.66		
CIR	--	0.00	0.00	4.62	5.20	1.13	0.00	16.79	CIR	--	0.00	0.00	4.62	5.20	1.13	0.00	16.79		
DRY BEANS																			
Mean CU	--	--	2.87	8.49	7.25	1.38	--	19.97	Mean CU	--	--	2.87	8.49	7.25	1.38	--	19.97		
CIR	--	--	1.78	7.86	6.58	0.83	--	17.07	CIR	--	--	1.78	7.86	6.58	0.83	--	17.07		
Max CU	--	--	--	3.98	10.12	8.46	1.77	--	Max CU	--	--	3.98	10.12	8.46	1.77	--	22.84		
CIR	--	--	--	3.72	9.79	8.40	1.57	--	CIR	--	--	3.72	9.79	8.40	1.57	--	21.40		
Min CU	--	--	--	1.90	7.05	5.54	0.97	--	Min CU	--	--	1.90	7.05	5.54	0.97	--	17.32		
CIR	--	--	--	0.00	4.89	4.03	0.00	--	CIR	--	--	0.00	4.89	4.03	0.00	--	12.05		
POTATOES																			
Mean CU	--	0.80	3.97	8.65	7.99	2.07	--	23.46	Mean CU	--	0.80	3.97	8.65	7.99	2.07	--	23.46		
CIR	--	0.14	2.81	8.02	7.32	1.46	--	19.76	CIR	--	0.14	2.81	8.02	7.32	1.46	--	19.76		
Max CU	--	1.10	5.51	10.31	9.32	2.65	--	26.54	Max CU	--	1.10	5.51	10.31	9.32	2.65	--	26.54		
CIR	--	0.91	5.25	9.97	9.26	2.45	--	24.51	CIR	--	0.91	5.25	9.97	9.26	2.45	--	24.51		
Min CU	--	0.59	2.63	7.19	6.10	1.46	--	20.46	Min CU	--	0.59	2.63	7.19	6.10	1.46	--	20.46		
CIR	--	0.00	0.00	5.03	4.62	0.00	--	13.98	CIR	--	0.00	0.00	5.03	4.62	0.00	--	13.98		
SUGAR BEETS																			
Mean CU	0.39	2.56	5.34	8.98	8.14	4.23	--	29.61	Mean CU	0.39	2.56	5.34	8.98	8.14	4.23	--	29.61		
CIR	0.09	1.48	4.15	8.35	7.47	3.56	--	25.06	CIR	0.09	1.48	4.15	8.35	7.47	3.56	--	25.06		
Max CU	0.61	3.50	7.41	10.70	9.49	5.44	--	33.56	Max CU	0.61	3.50	7.41	10.70	9.49	5.44	--	33.56		
CIR	0.48	3.18	7.15	10.35	9.43	5.24	--	30.55	CIR	0.48	3.18	7.15	10.35	9.43	5.24	--	30.55		
Min CU	0.28	1.87	3.53	7.46	6.22	2.99	--	25.51	Min CU	0.28	1.87	3.53	7.46	6.22	2.99	--	25.51		
CIR	0.00	0.00	0.12	5.31	4.73	0.78	--	19.21	CIR	0.00	0.00	0.12	5.31	4.73	0.78	--	19.21		

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

LUSK										MEDICINE BOW							
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	
ALFALFA HAY	--								--								
Mean CU	2.74	5.38	7.27	8.52	7.37	4.47	0.65	36.53	1.15	4.66	6.70	7.63	6.21	2.84	--	29.07	
CIR	0.85	2.79	4.98	6.70	6.39	3.32	0.18	25.25	0.29	3.16	5.54	6.43	5.36	1.94	--	22.58	
Max CU	3.70	6.90	9.92	10.11	8.75	5.32	0.88	40.31	1.66	6.49	8.67	8.69	7.15	3.49	--	33.70	
CIR	3.33	6.57	8.63	8.97	8.58	5.12	0.63	34.87	1.39	5.58	8.31	8.49	6.98	3.44	--	29.94	
Min CU	1.76	3.83	5.16	6.57	6.28	2.96	0.26	29.95	0.70	3.29	5.12	6.00	4.97	2.01	--	23.94	
CIR	0.00	0.00	0.31	3.73	1.42	0.00	0.00	14.28	0.00	0.00	1.73	2.04	1.70	0.00	--	15.81	
PASTURE GRASS AND GRASS HAY	--								--								
Mean CU	2.59	5.13	6.93	8.13	6.99	4.25	0.62	34.76	1.09	4.43	6.40	7.28	5.87	2.68	--	27.65	
CIR	0.76	2.59	4.64	6.30	6.02	3.11	0.17	23.63	0.26	2.95	5.23	6.07	5.03	1.79	--	21.19	
Max CU	3.50	6.58	9.46	9.64	8.30	5.05	0.84	38.37	1.58	6.18	8.27	8.28	6.77	3.30	--	32.05	
CIR	3.13	6.25	8.21	8.50	8.13	4.86	0.60	32.93	1.32	5.29	7.91	8.08	6.60	3.25	--	28.28	
Min CU	1.66	3.66	4.92	6.26	5.96	2.81	0.25	28.50	0.66	3.13	4.89	5.72	4.71	1.90	--	22.77	
CIR	0.00	0.00	0.07	3.42	1.10	0.00	0.00	12.99	0.00	0.00	1.50	1.76	1.44	0.00	--	14.72	
LAWN GRASS	--								--								
Mean CU	2.71	4.84	6.47	7.34	6.47	4.30	0.64	32.87	1.28	5.10	7.63	8.77	6.87	3.15	--	32.64	
CIR	0.83	2.36	4.18	5.51	5.49	3.16	0.18	21.77	0.37	3.59	6.46	7.57	6.02	2.23	--	26.09	
Max CU	3.66	6.20	8.83	8.70	7.68	5.12	0.86	36.28	1.84	7.11	9.86	9.99	7.91	3.88	--	37.88	
CIR	3.29	5.87	7.62	7.61	7.51	4.93	0.62	30.89	1.57	6.14	9.50	9.79	7.74	3.83	--	34.13	
Min CU	1.74	3.44	4.59	5.65	5.51	2.85	0.26	26.85	0.77	3.60	5.83	6.90	5.50	2.23	--	26.93	
CIR	0.00	0.00	0.00	2.81	0.65	0.00	0.00	11.83	0.00	0.00	2.44	2.94	2.23	0.00	--	18.66	
SPRING GRAINS	--								--								
Mean CU	0.82	4.32	7.82	6.09	--	--	--	19.04	1.19	4.57	6.52	7.28	6.21	3.23	--	28.85	
CIR	0.10	1.94	5.44	4.35	--	--	--	11.76	0.32	3.08	5.35	6.07	5.36	2.30	--	22.33	
Max CU	1.11	5.62	10.74	7.21	--	--	--	22.41	1.72	6.36	8.43	8.28	7.15	3.98	--	33.39	
CIR	0.74	5.29	9.40	6.28	--	--	--	18.30	1.45	5.46	8.07	8.08	6.98	3.92	--	29.63	
Min CU	0.52	3.12	5.50	4.68	--	--	--	15.01	0.72	3.22	4.98	5.72	4.97	2.29	--	23.76	
CIR	0.00	0.00	0.73	1.72	--	--	--	4.50	0.00	0.00	1.59	1.76	1.70	0.00	--	15.26	
WINTER WHEAT	--								--								
Mean CU	2.00	5.45	7.62	5.46	--	--	--	20.53	--	2.52	6.89	7.53	1.83	--	--	18.82	
CIR	0.55	2.84	5.24	3.72	--	--	--	12.26	--	1.17	5.76	6.39	1.03	--	--	14.18	
Max CU	2.72	7.09	10.47	6.46	--	--	--	24.29	--	3.56	8.98	8.54	2.13	--	--	22.34	
CIR	2.35	6.76	9.13	5.61	--	--	--	20.18	--	2.92	8.62	8.33	1.97	--	--	19.35	
Min CU	1.29	3.94	5.36	4.20	--	--	--	16.10	--	1.80	4.77	5.89	1.48	--	--	15.56	
CIR	0.00	0.00	0.59	1.13	--	--	--	4.90	--	0.00	1.92	1.93	0.00	--	--	8.42	
CORN	--								--								
Mean CU	--	1.18	3.98	7.91	8.81	5.39	0.31	27.61	--								
CIR	--	0.09	1.75	6.17	7.79	4.27	0.05	20.13	--								
Max CU	--	1.53	5.46	9.36	10.54	6.38	0.42	30.55	--								
CIR	--	1.20	4.54	8.24	10.37	6.24	0.29	27.33	--								
Min CU	--	0.85	2.80	6.08	7.56	3.55	0.12	22.51	--								
CIR	--	0.00	0.00	3.24	2.70	0.00	0.00	13.14	--								
DRY BEANS	--								--								
Mean CU	--	--	2.92	8.22	7.32	1.57	--	20.03	--								
CIR	--	--	0.97	6.48	6.30	0.76	--	14.46	--								
Max CU	--	--	4.00	9.73	8.75	1.86	--	22.20	--								
CIR	--	--	3.24	8.59	8.58	1.81	--	20.39	--								
Min CU	--	--	2.05	6.32	6.28	1.04	--	16.74	--								
CIR	--	--	0.00	3.48	1.42	0.00	--	8.68	--								

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

	MIDWEST								MOORCROFT								
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	
ALFALFA HAY -----									ALFALFA HAY -----								
Mean CU	3.69	5.92	7.89	9.10	7.88	4.78	1.16	40.41	Mean CU	1.92	4.95	6.60	8.29	7.12	3.98	0.77	33.66
CIR	2.08	3.48	5.92	7.79	7.14	3.74	0.48	30.67	CIR	0.85	2.96	4.13	6.73	5.93	2.91	0.25	24.00
Max CU	5.52	7.43	10.24	10.34	9.09	5.87	1.55	44.30	Max CU	3.03	6.92	9.90	9.68	8.77	5.15	1.08	41.02
CIR	5.38	6.90	9.40	10.28	8.90	5.72	1.38	41.21	CIR	2.58	6.72	7.92	9.15	8.57	4.96	1.07	31.94
Min CU	2.60	4.67	5.97	7.16	6.31	3.09	0.68	35.38	Min CU	1.18	3.63	4.79	6.08	5.45	2.09	0.36	28.79
CIR	0.00	0.00	1.65	5.47	4.65	0.13	0.00	21.95	CIR	0.00	0.00	0.00	2.73	2.37	0.16	0.00	17.89
PASTURE GRASS AND GRASS HAY -----									PASTURE GRASS AND GRASS HAY -----								
Mean CU	3.49	5.65	7.53	8.68	7.48	4.54	1.11	38.46	Mean CU	1.82	4.71	6.30	7.91	6.76	3.79	0.73	32.05
CIR	1.90	3.22	5.56	7.37	6.74	3.51	0.44	28.78	CIR	0.78	2.74	3.84	6.35	5.57	2.72	0.23	22.45
Max CU	5.22	7.09	9.77	9.86	8.63	5.58	1.48	42.16	Max CU	2.88	6.58	9.44	9.24	8.33	4.90	1.03	39.06
CIR	5.08	6.56	8.93	9.80	8.44	5.43	1.31	39.06	CIR	2.43	6.38	7.46	8.70	8.13	4.71	1.02	30.00
Min CU	2.46	4.45	5.70	6.83	5.99	2.93	0.64	33.67	Min CU	1.12	3.46	4.57	5.80	5.18	1.99	0.35	27.42
CIR	0.00	0.00	1.36	5.07	4.28	0.00	0.00	20.44	CIR	0.00	0.00	0.00	2.45	2.07	0.01	0.00	16.65
LAWN GRASS -----									LAWN GRASS -----								
Mean CU	3.65	5.32	7.02	7.84	6.92	4.60	1.14	36.47	Mean CU	1.99	4.86	6.42	7.76	6.76	4.03	0.78	32.61
CIR	2.04	2.92	5.05	6.53	6.17	3.56	0.46	26.79	CIR	0.91	2.87	3.95	6.20	5.57	2.96	0.26	22.95
Max CU	5.46	6.67	9.11	8.90	7.98	5.65	1.52	39.96	Max CU	3.14	6.78	9.62	9.06	8.33	5.22	1.10	39.76
CIR	5.32	6.14	8.28	8.84	7.79	5.50	1.35	36.85	CIR	2.68	6.58	7.64	8.53	8.13	5.02	1.08	30.68
Min CU	2.58	4.19	5.32	6.17	5.54	2.97	0.67	31.84	Min CU	1.22	3.56	4.65	5.69	5.18	2.12	0.37	27.90
CIR	0.00	0.00	0.96	4.27	3.76	0.00	0.00	18.46	CIR	0.00	0.00	0.00	2.34	2.07	0.19	0.00	17.12
SPRING GRAINS -----									SPRING GRAINS -----								
Mean CU	0.91	4.77	8.48	6.53	--	--	--	20.68	Mean CU	--	2.69	6.77	7.98	2.01	--	--	19.48
CIR	0.14	2.47	6.57	5.29	--	--	--	14.45	CIR	--	0.86	4.33	6.44	0.97	--	--	12.72
Max CU	1.36	6.05	11.08	7.48	--	--	--	24.35	Max CU	--	3.79	10.26	9.32	2.48	--	--	25.27
CIR	1.22	5.52	10.23	7.31	--	--	--	22.46	CIR	--	3.59	8.28	8.79	2.34	--	--	18.60
Min CU	0.64	3.72	5.99	5.11	--	--	--	17.02	Min CU	--	1.99	4.95	5.86	1.54	--	--	16.58
CIR	0.00	0.00	2.17	2.99	--	--	--	8.06	CIR	--	0.00	0.00	2.51	0.00	--	--	7.41
WINTER WHEAT -----									WINTER WHEAT -----								
Mean CU	2.24	6.01	8.27	5.86	--	--	--	22.35	Mean CU	0.70	3.87	7.01	7.67	1.79	--	--	21.06
CIR	0.89	3.62	6.36	4.61	--	--	--	15.39	CIR	0.11	1.81	4.56	6.14	0.81	--	--	13.57
Max CU	3.35	7.64	10.80	6.71	--	--	--	26.30	Max CU	1.11	5.45	10.62	8.97	2.21	--	--	27.50
CIR	3.21	7.11	9.95	6.54	--	--	--	24.42	CIR	0.72	5.25	8.64	8.44	2.09	--	--	20.32
Min CU	1.58	4.70	5.84	4.57	--	--	--	18.24	Min CU	0.43	2.86	5.12	5.64	1.38	--	--	18.08
CIR	0.00	0.00	2.00	2.35	--	--	--	8.82	CIR	0.00	0.00	0.00	2.29	0.00	--	--	8.58
CORN -----									CORN -----								
Mean CU	--	1.30	4.31	8.49	9.45	5.79	0.34	29.78	Mean CU	--	1.13	3.60	7.60	8.46	4.71	0.25	25.71
CIR	--	0.16	2.45	7.24	8.67	4.79	0.06	23.63	CIR	--	0.17	1.34	6.06	7.21	3.63	0.03	18.60
Max CU	--	1.65	5.63	9.72	10.95	7.05	0.45	32.32	Max CU	--	1.60	5.45	8.88	10.45	6.11	0.34	29.98
CIR	--	1.12	4.84	9.51	10.76	6.90	0.36	28.11	CIR	--	1.40	4.10	8.35	10.25	5.90	0.34	23.54
Min CU	--	1.02	3.05	6.63	7.60	3.71	0.20	25.82	Min CU	--	0.84	2.63	5.58	6.50	2.48	0.12	21.64
CIR	--	0.00	0.00	4.83	6.14	0.88	0.00	18.08	CIR	--	0.00	0.00	2.23	3.51	0.12	0.00	9.23

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

MORAN										MORRISEY									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		
ALFALFA HAY	--								ALFALFA HAY	--									
Mean CU	--	2.90	5.13	6.03	4.58	1.21	--	19.86	Mean CU	3.46	5.80	7.75	9.29	8.09	4.90	1.85	41.11		
CIR	--	0.99	3.57	4.92	3.35	0.32	--	13.14	CIR	1.87	3.53	5.71	7.45	7.21	4.02	1.22	31.03		
Max CU	--	4.04	7.15	7.24	5.45	1.66	--	24.66	Max CU	4.67	7.31	10.78	10.86	9.28	5.83	2.59	44.68		
CIR	--	3.08	6.77	7.16	4.97	1.49	--	22.00	CIR	3.92	7.25	10.01	10.80	9.03	5.75	2.59	36.74		
Min CU	--	1.96	3.64	4.90	3.82	0.74	--	17.08	Min CU	2.46	4.44	5.73	7.05	6.62	3.06	0.99	34.33		
CIR	--	0.00	0.14	1.96	0.41	0.00	--	8.87	CIR	0.00	0.00	2.38	1.48	4.61	1.08	0.00	21.37		
PASTURE GRASS AND GRASS HAY	--								PASTURE GRASS AND GRASS HAY	--									
Mean CU	--	2.75	4.90	5.75	4.37	1.16	--	18.92	Mean CU	3.27	5.53	7.39	8.86	7.68	4.66	1.76	39.13		
CIR	--	0.86	3.34	4.63	3.14	0.29	--	12.26	CIR	1.70	3.29	5.36	7.02	6.79	3.77	1.14	29.10		
Max CU	--	3.82	6.82	6.90	5.20	1.59	--	23.50	Max CU	4.42	6.97	10.29	10.36	8.81	5.54	2.47	42.53		
CIR	--	2.88	6.44	6.82	4.72	1.43	--	20.83	CIR	3.68	6.91	9.52	10.30	8.57	5.46	2.47	34.60		
Min CU	--	1.85	3.47	4.67	3.65	0.70	--	16.27	Min CU	2.32	4.23	5.47	6.73	6.29	2.91	0.95	32.67		
CIR	--	0.00	0.00	1.70	0.23	0.00	--	7.97	CIR	0.00	0.00	2.11	1.16	4.28	0.91	0.00	19.95		
MOUNTAIN MEADOW HAY	--								LAWN GRASS	--									
Mean CU	--	3.48	5.84	7.00	5.41	1.45	--	23.18	Mean CU	3.42	5.21	6.90	8.00	7.10	4.72	1.82	37.14		
CIR	--	1.51	4.28	5.88	4.17	0.45	--	16.29	CIR	1.84	3.01	4.86	6.16	6.21	3.83	1.20	27.12		
Max CU	--	4.84	8.13	8.40	6.44	1.98	--	28.75	Max CU	4.62	6.57	9.59	9.36	8.14	5.61	2.55	40.38		
CIR	--	3.84	7.75	8.32	5.96	1.78	--	26.08	CIR	3.87	6.51	8.82	9.30	7.92	5.54	2.55	32.45		
Min CU	--	2.35	4.14	5.68	4.51	0.88	--	19.94	Min CU	2.43	3.99	5.10	6.07	5.81	2.95	0.98	30.90		
CIR	--	0.00	0.65	2.84	1.13	0.00	--	11.46	CIR	0.00	0.00	1.74	0.50	3.80	0.95	0.00	18.41		
LAWN GRASS	--								SPRING GRAINS	--									
Mean CU	--	3.11	4.99	5.81	4.89	1.48	--	20.29	Mean CU	0.87	4.68	8.37	6.70	--	--	--	20.61		
CIR	--	1.17	3.43	4.69	3.66	0.47	--	13.41	CIR	0.15	2.52	6.30	4.92	--	--	--	14.05		
Max CU	--	4.34	6.95	6.97	5.82	2.03	--	25.11	Max CU	1.19	5.96	11.67	7.98	--	--	--	23.64		
CIR	--	3.36	6.57	6.89	5.34	1.83	--	22.45	CIR	1.08	5.90	10.90	7.69	--	--	--	20.88		
Min CU	--	2.10	3.54	4.71	4.08	0.90	--	17.41	Min CU	0.61	3.62	6.14	5.03	--	--	--	16.96		
CIR	--	0.00	0.03	1.75	0.68	0.00	--	9.19	CIR	0.00	0.00	2.82	0.00	--	--	--	7.77		
SPRING GRAINS	--								WINTER WHEAT	--									
Mean CU	--	1.91	5.23	5.95	1.43	--	--	14.52	Mean CU	2.14	5.90	8.15	6.00	--	--	--	22.19		
CIR	--	0.34	3.64	4.83	0.44	--	--	9.26	CIR	0.87	3.60	6.09	4.24	--	--	--	15.00		
Max CU	--	2.68	7.41	7.17	1.73	--	--	18.63	Max CU	2.92	7.51	11.37	7.15	--	--	--	25.55		
CIR	--	1.80	7.03	7.09	1.37	--	--	16.53	CIR	2.81	7.45	10.60	6.88	--	--	--	21.95		
Min CU	--	1.30	3.72	4.85	1.10	--	--	11.70	Min CU	1.50	4.56	5.98	4.51	--	--	--	17.96		
CIR	--	0.00	0.27	1.91	0.00	--	--	6.21	CIR	0.00	0.00	2.66	0.00	--	--	--	8.55		

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

MUDDY GAP									NEWCASTLE								
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON
ALFALFA HAY									ALFALFA HAY								
Mean CU	1.68	4.87	6.97	8.29	7.17	4.35	0.68	33.86	Mean CU	3.41	5.65	7.11	8.86	7.39	4.54	1.59	38.65
CIR	0.70	3.04	5.99	7.26	6.50	3.45	0.22	27.03	CIR	1.92	3.41	4.87	6.97	5.81	3.40	0.76	27.29
Max CU	2.52	6.33	9.31	9.40	8.30	5.36	0.90	39.48	Max CU	4.43	7.42	9.12	10.01	8.57	5.32	2.02	44.08
CIR	1.83	5.57	9.25	9.32	8.15	5.34	0.82	34.08	CIR	4.21	6.91	7.42	9.39	8.23	5.12	1.96	37.24
Min CU	0.77	3.54	5.32	6.77	5.38	2.80	0.32	28.52	Min CU	2.41	4.73	5.86	7.58	6.35	3.23	1.10	35.21
CIR	0.00	0.00	3.46	4.79	1.69	0.00	0.00	16.96	CIR	0.00	0.37	1.70	4.43	2.93	0.00	0.00	19.08
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY								
Mean CU	1.60	4.63	6.65	7.91	6.80	4.13	0.65	32.25	Mean CU	3.22	5.39	6.79	8.45	7.01	4.31	1.52	36.78
CIR	0.64	2.82	5.67	6.88	6.13	3.24	0.20	25.48	CIR	1.76	3.15	4.55	6.56	5.44	3.19	0.70	25.47
Max CU	2.39	6.03	8.88	8.96	7.88	5.10	0.86	37.60	Max CU	4.19	7.08	8.70	9.55	8.14	5.05	1.93	41.95
CIR	1.70	5.27	8.82	8.89	7.73	5.08	0.78	32.34	CIR	3.98	6.57	7.05	8.93	7.80	4.86	1.87	35.15
Min CU	0.73	3.37	5.08	6.46	5.10	2.66	0.31	27.16	Min CU	2.28	4.51	5.60	7.23	6.03	3.07	1.05	33.51
CIR	0.00	0.00	3.20	4.45	1.41	0.00	0.00	15.83	CIR	0.00	0.12	1.41	4.08	2.59	0.00	0.00	17.72
LAWN GRASS									LAWN GRASS								
Mean CU	1.75	4.78	6.78	7.76	6.80	4.40	0.69	32.81	Mean CU	3.37	5.08	6.33	7.63	6.48	4.37	1.57	34.92
CIR	0.75	2.95	5.80	6.72	6.13	3.51	0.23	25.97	CIR	1.89	2.85	4.09	5.74	4.91	3.24	0.74	23.58
Max CU	2.61	6.21	9.05	8.79	7.88	5.43	0.92	38.28	Max CU	4.39	6.66	8.12	8.62	7.53	5.12	1.99	39.84
CIR	1.92	5.45	8.99	8.72	7.73	5.41	0.83	32.95	CIR	4.17	6.15	6.54	8.00	7.19	4.92	1.93	33.02
Min CU	0.80	3.47	5.17	6.33	5.10	2.84	0.33	27.57	Min CU	2.38	4.25	5.22	6.53	5.57	3.11	1.08	31.79
CIR	0.00	0.00	3.31	4.32	1.41	0.00	0.00	16.02	CIR	0.00	0.00	1.01	3.31	2.11	0.00	0.00	15.69
SPRING GRAINS									SPRING GRAINS								
Mean CU	--	2.63	7.15	8.02	2.02	--	--	19.85	Mean CU	0.91	4.61	7.70	6.32	--	--	--	19.59
CIR	--	1.11	6.13	7.06	1.39	--	--	15.67	CIR	0.12	2.40	5.46	4.43	--	--	--	12.43
Max CU	--	3.47	9.65	9.05	2.35	--	--	24.02	Max CU	1.18	6.05	9.88	7.14	--	--	--	23.31
CIR	--	2.76	9.59	8.98	2.24	--	--	21.67	CIR	1.10	5.54	8.09	6.52	--	--	--	19.34
Min CU	--	1.93	4.66	6.52	1.52	--	--	16.11	Min CU	0.64	3.85	6.35	5.41	--	--	--	17.37
CIR	--	0.00	3.00	4.52	0.00	--	--	9.17	CIR	0.00	0.00	2.21	2.07	--	--	--	6.88
WINTER WHEAT									WINTER WHEAT								
Mean CU	0.68	3.78	7.41	7.71	1.80	--	--	21.36	Mean CU	2.22	5.81	7.50	5.66	--	--	--	21.27
CIR	0.10	2.02	6.39	6.75	1.18	--	--	16.39	CIR	0.90	3.57	5.27	3.77	--	--	--	13.55
Max CU	1.02	4.99	9.99	8.71	2.10	--	--	26.17	Max CU	2.89	7.63	9.63	6.40	--	--	--	25.55
CIR	0.78	4.25	9.93	8.64	2.00	--	--	22.95	CIR	2.74	7.12	7.87	5.78	--	--	--	21.67
Min CU	0.31	2.77	4.82	6.27	1.36	--	--	17.25	Min CU	1.57	4.86	6.19	4.84	--	--	--	18.86
CIR	0.00	0.00	3.16	4.25	0.00	--	--	8.94	CIR	0.00	0.51	2.04	1.44	--	--	--	7.33

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

PATHFINDER DAM								PINE BLUFFS									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	
ALFALFA HAY									ALFALFA HAY								
Mean	CU	2.04	5.23	7.16	8.51	7.40	4.45	1.31	CU	3.67	6.14	7.58	8.59	7.21	4.47	1.25	39.07
CIR	0.97	3.58	5.95	7.60	6.77	3.73	0.67	29.64	CIR	2.17	3.66	4.66	6.32	5.29	3.18	0.60	26.23
Max	CU	3.02	6.55	9.59	10.04	8.51	5.57	1.68	CU	4.95	7.73	9.25	10.40	9.02	5.46	1.76	45.04
CIR	2.87	6.18	9.57	9.53	8.15	5.11	1.60	37.81	CIR	4.15	7.34	8.10	8.79	8.45	5.21	1.53	34.86
Min	CU	1.16	3.96	5.13	6.85	6.13	2.71	0.65	CU	2.32	3.95	5.71	6.83	5.63	3.16	0.58	33.14
CIR	0.00	0.00	2.26	5.66	5.01	0.92	0.00	22.63	CIR	0.00	0.00	1.70	1.93	0.24	0.92	0.00	18.24
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY								
Mean	CU	1.93	4.98	6.83	8.12	7.02	4.23	1.25	CU	3.47	5.86	7.23	8.19	6.85	4.24	1.20	37.19
CIR	0.87	3.35	5.62	7.21	6.39	3.51	0.63	27.92	CIR	1.99	3.38	4.31	5.92	4.92	2.95	0.55	24.36
Max	CU	2.85	6.25	9.15	9.58	8.07	5.29	1.60	CU	4.68	7.37	8.83	9.92	8.56	5.18	1.68	42.87
CIR	2.70	5.89	9.13	9.07	7.74	4.83	1.53	35.79	CIR	3.88	6.99	7.68	8.35	7.99	4.95	1.46	32.77
Min	CU	1.10	3.78	4.90	6.53	5.81	2.58	0.62	CU	2.19	3.77	5.45	6.51	5.34	3.00	0.55	31.54
CIR	0.00	0.00	2.01	5.32	4.67	0.79	0.00	21.07	CIR	0.00	0.00	1.44	1.59	0.00	0.69	0.00	16.99
LAWN GRASS									LAWN GRASS								
Mean	CU	2.02	4.69	6.37	7.33	6.49	4.28	1.29	CU	3.63	5.52	6.74	7.40	6.33	4.30	1.23	35.30
CIR	0.95	3.06	5.16	6.42	5.86	3.57	0.66	26.02	CIR	2.14	3.05	3.82	5.13	4.42	3.01	0.58	22.49
Max	CU	2.98	5.89	8.54	8.65	7.46	5.36	1.65	CU	4.90	6.95	8.24	8.96	7.91	5.25	1.73	40.51
CIR	2.83	5.55	8.52	8.14	7.16	4.90	1.58	33.62	CIR	4.10	6.57	7.09	7.48	7.34	5.01	1.50	30.69
Min	CU	1.15	3.56	4.57	5.90	5.38	2.61	0.64	CU	2.29	3.55	5.08	5.88	4.94	3.04	0.57	29.82
CIR	0.00	0.00	1.66	4.59	4.21	0.82	0.00	19.37	CIR	0.00	0.00	1.03	0.92	0.00	0.75	0.00	15.37
SPRING GRAINS									SPRING GRAINS								
Mean	CU	0.76	4.18	7.67	6.10	--	--	--	CU	0.97	4.94	8.17	6.13	--	--	--	20.30
CIR	0.15	2.54	6.49	5.23	--	--	--	--	CIR	0.18	2.47	5.34	3.88	--	--	--	12.12
Max	CU	1.14	5.34	10.38	7.16	--	--	--	CU	1.32	6.30	10.36	7.42	--	--	--	24.04
CIR	0.99	5.03	10.36	6.65	--	--	--	--	CIR	0.80	5.94	9.17	6.11	--	--	--	18.25
Min	CU	0.44	2.94	5.36	4.88	--	--	--	CU	0.62	3.22	6.08	4.87	--	--	--	16.87
CIR	0.00	0.00	2.70	3.41	--	--	--	--	CIR	0.00	0.00	1.90	0.00	--	--	--	4.02
WINTER WHEAT									WINTER WHEAT								
Mean	CU	1.87	5.28	7.47	5.46	--	--	--	CU	2.38	6.23	7.96	5.49	--	--	--	22.17
CIR	0.86	3.58	6.29	4.59	--	--	--	--	CIR	1.05	3.72	5.13	3.28	--	--	--	13.44
Max	CU	2.79	6.74	10.12	6.42	--	--	--	CU	3.23	7.95	10.10	6.64	--	--	--	25.95
CIR	2.64	6.35	10.10	5.95	--	--	--	--	CIR	2.57	7.55	8.91	5.44	--	--	--	20.83
Min	CU	1.07	3.71	5.22	4.37	--	--	--	CU	1.52	4.06	5.92	4.36	--	--	--	17.82
CIR	0.00	0.00	2.56	2.83	--	--	--	--	CIR	0.00	0.00	1.74	0.00	--	--	--	5.09
CORN									CORN								
Mean	CU	--	1.14	3.90	7.92	8.83	5.36	0.31	CU	--	1.35	4.16	7.96	8.60	5.41	0.32	27.80
CIR	--	0.21	2.72	7.05	8.21	4.67	0.05	23.18	CIR	--	0.16	1.54	5.68	6.62	4.13	0.05	18.18
Max	CU	--	1.46	5.28	9.30	10.24	6.68	0.40	CU	--	1.72	5.27	9.63	10.86	6.55	0.45	33.03
CIR	--	1.36	5.26	8.79	9.82	6.22	0.37	26.89	CIR	--	1.44	4.08	8.09	10.29	6.26	0.37	24.95
Min	CU	--	0.80	2.72	6.34	7.37	3.25	0.15	CU	--	0.88	3.09	6.32	6.77	3.79	0.15	23.85
CIR	--	0.00	0.00	5.10	6.34	1.46	0.00	18.06	CIR	--	0.00	0.00	1.03	1.51	1.84	0.00	12.63
DRY BEANS									DRY BEANS								
Mean	CU	--	--	3.05	8.27	7.14	1.58	--	CU	--	--	3.05	8.27	7.14	1.58	--	20.08
CIR	--	--	0.78	6.00	5.16	0.57	--	--	CIR	--	--	0.78	6.00	5.16	0.57	--	12.59
Max	CU	--	--	3.86	10.02	9.02	1.91	--	CU	--	--	2.67	8.44	8.45	1.82	--	24.23
CIR	--	--	--	2.67	8.44	8.45	1.82	--	CIR	--	--	2.27	6.57	5.63	1.11	--	17.71
Min	CU	--	--	2.27	6.57	5.63	1.11	--	CU	--	--	0.00	1.33	0.24	0.00	--	17.12
POTATOES									POTATOES								
Mean	CU	--	0.84	4.22	8.43	7.87	2.37	--	CU	--	0.84	4.22	8.43	7.87	2.37	--	23.77
CIR	--	0.04	1.60	6.16	5.89	1.17	--	--	CIR	--	0.04	1.60	6.16	5.89	1.17	--	14.91
Max	CU	--	1.07	5.36	10.21	9.94	2.86	--	CU	--	1.07	5.36	10.21	9.94	2.86	--	28.62
CIR	--	0.80	4.17	8.61	9.37	2.73	--	--	CIR	--	0.80	4.17	8.61	9.37	2.73	--	21.06
Min	CU	--	0.55	3.14	6.70	6.20	1.66	--	CU	--	0.55	3.14	6.70	6.20	1.66	--	20.26
CIR	--	0.00	0.00	1.48	0.88	0.00	--	--	CIR	--	0.00	0.00	1.48	0.88	0.00	--	8.79
SUGAR BEETS									SUGAR BEETS								
Mean	CU	0.44	2.70	5.68	8.75	8.01	4.85	--	CU	0.44	2.70	5.68	8.75	8.01	4.85	--	30.47
CIR	0.01	0.76	2.85	6.47	6.04	3.56	--	--	CIR	0.01	0.76	2.85	6.47	6.04	3.56	--	19.86
Max	CU	0.60	3.44	7.20	10.59	10.12	5.87	--	CU	0.60	3.44	7.20	10.59	10.12	5.87	--	36.26
CIR	0.19	3.12	6.01	8.96	9.55	5.60	--	--	CIR	0.19	3.12	6.01	8.96	9.55	5.60	--	26.72
Min	CU	0.28	1.76	4.22	6.95	6.31	3.40	--	CU	0.28	1.76	4.22	6.95	6.31	3.40	--	26.07
CIR	0.00	0.00	0.04	1.77	1.00	1.27	--	--	CIR	0.00	0.00	0.04	1.77	1.00	1.27	--	13.62

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

PINEDALE									POWELL								
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON
ALFALFA HAY									ALFALFA HAY								
Mean CU	--	3.21	5.26	5.99	4.44	0.82	--	19.70	Mean CU	3.55	5.81	7.11	8.69	7.30	4.01	1.39	37.86
CIR	--	1.74	4.07	4.93	3.37	0.18	--	13.96	CIR	3.01	4.43	5.76	7.90	6.67	3.25	0.99	32.04
Max CU	--	5.16	6.68	6.75	5.14	1.10	--	22.39	Max CU	5.08	7.92	9.69	10.48	9.02	5.14	1.98	43.95
CIR	--	5.02	6.42	6.50	4.67	0.88	--	20.37	CIR	5.08	7.45	9.43	10.11	8.83	5.03	1.88	39.02
Min CU	--	2.25	3.38	5.03	3.77	0.51	--	16.77	Min CU	2.54	3.99	4.26	6.86	5.77	2.44	0.86	29.41
CIR	--	0.00	0.06	2.81	0.86	0.00	--	8.59	CIR	1.39	0.34	1.32	5.20	3.98	0.19	0.00	21.97
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY								
Mean CU	--	3.04	5.02	5.71	4.23	0.78	--	18.77	Mean CU	3.35	5.54	6.78	8.29	6.92	3.82	1.33	36.03
CIR	--	1.60	3.83	4.65	3.17	0.17	--	13.09	CIR	2.82	4.16	5.44	7.50	6.30	3.05	0.93	30.22
Max CU	--	4.89	6.38	6.43	4.91	1.05	--	21.33	Max CU	4.80	7.55	9.25	9.99	8.56	4.89	1.88	41.84
CIR	--	4.75	6.12	6.18	4.45	0.84	--	19.31	CIR	4.80	7.08	8.99	9.64	8.37	4.78	1.78	36.90
Min CU	--	2.13	3.22	4.80	3.60	0.49	--	15.97	Min CU	2.40	3.80	4.07	6.54	5.48	2.32	0.82	27.98
CIR	--	0.00	0.00	2.55	0.68	0.00	--	7.89	CIR	1.22	0.15	1.13	4.87	3.68	0.06	0.00	20.56
MOUNTAIN MEADOW HAY									LAWN GRASS								
Mean CU	--	3.85	5.98	6.95	5.24	0.98	--	22.93	Mean CU	3.51	5.22	6.33	7.48	6.40	3.86	1.37	34.17
CIR	--	2.30	4.79	5.89	4.17	0.25	--	17.05	CIR	2.98	3.84	4.98	6.69	5.78	3.10	0.97	28.36
Max CU	--	6.19	7.60	7.84	6.07	1.31	--	26.09	Max CU	5.02	7.11	8.62	9.02	7.91	4.95	1.95	39.64
CIR	--	6.05	7.34	7.57	5.52	1.08	--	24.07	CIR	5.02	6.64	8.36	8.70	7.72	4.84	1.85	34.69
Min CU	--	2.70	3.84	5.84	4.45	0.61	--	19.57	Min CU	2.51	3.58	3.79	5.91	5.07	2.35	0.85	26.50
CIR	--	0.00	0.52	3.69	1.58	0.00	--	11.12	CIR	1.36	0.00	0.85	4.21	3.27	0.09	0.00	19.07
LAWN GRASS									SPRING GRAINS								
Mean CU	--	3.45	5.11	5.77	4.74	1.00	--	19.99	Mean CU	0.87	4.71	7.63	6.19	--	--	--	19.42
CIR	--	1.94	3.93	4.71	3.67	0.27	--	14.16	CIR	0.45	3.42	6.32	5.41	--	--	--	15.65
Max CU	--	5.54	6.50	6.50	5.49	1.34	--	22.71	Max CU	1.26	6.45	10.49	7.47	--	--	--	24.46
CIR	--	5.40	6.24	6.25	4.99	1.11	--	20.69	CIR	1.26	5.98	10.23	7.20	--	--	--	20.49
Min CU	--	2.42	3.29	4.84	4.02	0.62	--	17.02	Min CU	0.62	3.25	4.61	4.89	--	--	--	14.14
CIR	--	0.00	0.00	2.60	1.13	0.00	--	8.61	CIR	0.00	0.00	1.67	3.15	--	--	--	9.47
SPRING GRAINS									WINTER WHEAT								
Mean CU	--	2.05	5.47	6.00	1.41	--	--	14.92	Mean CU	2.14	5.95	7.43	5.55	--	--	--	21.10
CIR	--	0.82	4.28	4.96	0.47	--	--	10.31	CIR	1.64	4.64	6.13	4.77	--	--	--	17.24
Max CU	--	3.31	6.93	6.92	1.64	--	--	17.32	Max CU	3.08	8.14	10.22	6.69	--	--	--	26.49
CIR	--	3.17	6.67	6.44	1.45	--	--	15.45	CIR	3.08	7.67	9.96	6.45	--	--	--	22.52
Min CU	--	1.44	3.50	4.99	1.20	--	--	12.15	Min CU	1.52	4.10	4.50	4.38	--	--	--	15.50
CIR	--	0.00	0.18	2.76	0.00	--	--	5.50	CIR	0.12	0.45	1.56	2.62	--	--	--	10.83
CORN									DRY BEANS								
Mean CU	--	1.29	3.88	8.04	8.72	4.86	0.27	27.01	Mean CU	--	2.84	8.36	7.24	1.42	--	--	19.84
CIR	--	0.38	2.63	7.26	8.10	4.16	0.11	22.61	CIR	--	1.70	7.58	6.62	0.83	--	--	16.74
Max CU	--	1.76	5.33	9.70	10.86	6.17	0.38	30.28	Max CU	--	3.91	10.09	9.02	1.80	--	--	22.55
CIR	--	1.60	5.11	9.36	10.67	6.06	0.36	27.17	CIR	--	3.74	9.74	8.83	1.69	--	--	21.40
Min CU	--	0.89	2.35	6.35	6.86	2.93	0.16	21.81	Min CU	--	1.72	6.60	5.69	0.85	--	--	16.16
CIR	--	0.00	0.00	4.67	5.17	0.74	0.00	15.63	CIR	--	0.00	4.93	3.98	0.00	--	--	11.45
POTATOES									SUGAR BEETS								
Mean CU	--	0.80	3.94	8.52	7.98	2.13	--	23.35	Mean CU	0.40	2.57	5.30	8.84	8.13	4.36	--	29.56
CIR	--	0.15	2.69	7.74	7.36	1.50	--	19.43	CIR	0.14	1.37	4.00	8.07	7.51	3.65	--	24.70
Max CU	--	1.10	5.42	10.28	9.94	2.70	--	26.52	Max CU	0.57	3.52	7.29	10.67	10.12	5.53	--	33.52
CIR	--	0.98	5.19	9.92	9.75	2.59	--	24.48	CIR	0.57	3.23	7.03	10.30	9.93	5.42	--	29.63
Min CU	--	0.55	2.39	6.73	6.27	1.28	--	18.86	Min CU	0.28	1.77	3.21	6.99	6.39	2.62	--	23.57
CIR	--	0.00	0.00	5.07	4.58	0.00	--	12.81	CIR	0.00	0.00	0.27	5.33	4.69	0.40	--	16.94

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

RAWLINS									REDBIRD									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	
ALFALFA HAY									ALFALFA HAY									
Mean	CU	1.03	4.42	6.51	7.72	6.33	3.49	--	Mean	CU	3.73	5.90	7.81	9.18	7.87	4.72	0.67	39.87
CIR	0.36	3.22	5.61	6.88	5.55	2.66	--	24.24	CIR	2.18	3.40	5.44	7.18	6.40	3.49	0.16	28.12	
Max	CU	1.53	5.61	8.64	8.84	7.33	4.46	--	Max	CU	5.06	7.54	10.37	10.61	9.42	5.82	0.92	44.67
CIR	1.26	5.10	8.48	8.45	7.15	4.27	--	33.60	CIR	4.58	7.42	9.06	10.16	9.16	5.51	0.75	36.14	
Min	CU	0.59	3.17	4.64	6.36	5.08	2.25	--	Min	CU	2.47	4.40	5.29	7.07	6.14	2.92	0.40	33.83
CIR	0.00	0.30	2.67	4.59	3.05	0.00	--	18.80	CIR	0.00	0.00	0.96	2.82	3.26	0.00	0.00	20.36	
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY									
Mean	CU	0.98	4.20	6.22	7.36	6.00	3.30	--	Mean	CU	3.53	5.63	7.45	8.75	7.47	4.48	0.64	37.94
CIR	0.33	3.01	5.31	6.52	5.21	2.47	--	22.81	CIR	2.00	3.13	5.08	6.75	6.00	3.26	0.15	26.25	
Max	CU	1.46	5.34	8.25	8.43	6.94	4.21	--	Max	CU	4.78	7.19	9.89	10.11	8.94	5.53	0.88	42.52
CIR	1.20	4.83	8.09	8.05	6.76	4.02	--	27.90	CIR	4.30	7.07	8.63	9.68	8.68	5.22	0.71	34.03	
Min	CU	0.56	3.02	4.43	6.06	4.81	2.13	--	Min	CU	2.34	4.19	5.04	6.75	5.83	2.77	0.38	32.19
CIR	0.00	0.15	2.46	4.26	2.78	0.00	--	17.64	CIR	0.00	0.00	0.68	2.43	2.85	0.00	0.00	18.74	
MOUNTAIN MEADOW HAY									LAWN GRASS									
Mean	CU	1.15	4.84	7.41	8.87	7.01	3.88	--	Mean	CU	3.69	5.30	6.95	7.90	6.91	4.54	0.66	35.94
CIR	0.44	3.64	6.51	8.03	6.23	3.05	--	27.85	CIR	2.14	2.83	4.58	5.91	5.44	3.31	0.16	24.25	
Max	CU	1.70	6.14	9.83	10.16	8.11	4.95	--	Max	CU	5.01	6.77	9.22	9.13	8.26	5.60	0.91	40.28
CIR	1.41	5.63	9.67	9.76	7.93	4.76	--	33.71	CIR	4.53	6.65	8.02	8.72	8.00	5.29	0.74	31.85	
Min	CU	0.66	3.48	5.28	7.31	5.62	2.50	--	Min	CU	2.45	3.95	4.70	6.09	5.39	2.81	0.39	30.37
CIR	0.00	0.61	3.31	5.63	3.59	0.00	--	21.80	CIR	0.00	0.00	0.28	1.64	2.27	0.00	0.00	17.02	
LAWN GRASS									SPRING GRAINS									
Mean	CU	1.07	4.33	6.34	7.36	6.33	3.98	--	Mean	CU	0.92	4.76	8.41	6.57	--	--	--	20.66
CIR	0.39	3.13	5.43	6.52	5.55	3.14	--	24.12	CIR	0.17	2.35	5.94	4.65	--	--	--	13.09	
Max	CU	1.59	5.50	8.41	8.43	7.33	5.08	--	Max	CU	1.25	6.14	11.22	7.56	--	--	--	24.60
CIR	1.31	4.98	8.25	8.05	7.15	4.89	--	29.36	CIR	0.95	6.02	9.83	7.18	--	--	--	20.37	
Min	CU	0.61	3.11	4.52	6.06	5.08	2.57	--	Min	CU	0.61	3.58	5.72	5.04	--	--	--	16.29
CIR	0.00	0.24	2.55	4.26	3.05	0.00	--	18.29	CIR	0.00	0.00	1.11	0.38	--	--	--	6.57	
SPRING GRAINS									WINTER WHEAT									
Mean	CU	--	2.39	6.71	7.61	1.88	--	--	Mean	CU	2.26	6.00	8.20	5.89	--	--	--	22.34
CIR	--	1.27	5.87	6.82	1.14	--	--	15.10	CIR	0.95	3.52	5.72	3.98	--	--	--	14.15	
Max	CU	--	3.07	8.96	8.67	2.18	--	--	Max	CU	3.07	7.75	10.94	6.78	--	--	--	26.70
CIR	--	2.68	8.80	8.62	2.00	--	--	19.37	CIR	2.59	7.63	9.57	6.41	--	--	--	21.46	
Min	CU	--	1.74	4.79	6.24	1.51	--	--	Min	CU	1.50	4.52	5.58	4.52	--	--	--	17.82
CIR	--	0.00	2.84	4.46	0.00	--	--	11.65	CIR	0.00	0.00	0.96	0.00	--	--	--	7.28	
WINTER WHEAT									CORN									
Mean	CU	0.58	3.44	6.95	7.32	1.68	--	--	Mean	CU	--	1.30	4.28	8.53	9.44	5.70	0.32	29.57
CIR	0.10	2.28	6.10	6.53	0.96	--	--	15.96	CIR	--	0.11	1.96	6.62	7.98	4.51	0.05	21.12	
Max	CU	0.87	4.42	9.28	8.34	1.95	--	--	Max	CU	--	1.68	5.71	9.82	11.34	6.98	0.44	32.68
CIR	0.68	3.91	9.12	8.29	1.77	--	--	20.85	CIR	--	1.56	4.83	9.39	11.08	6.67	0.36	27.35	
Min	CU	0.33	2.50	4.96	6.00	1.35	--	--	Min	CU	--	0.98	2.91	6.55	7.40	3.50	0.19	24.57
CIR	0.00	0.00	3.01	4.20	0.00	--	--	12.28	CIR	--	0.00	0.00	2.19	4.90	0.00	0.00	14.36	

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

RIVERTON									ROCK SPRINGS									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		
ALFALFA HAY									ALFALFA HAY									
Mean	CU	2.45	5.32	7.20	8.20	6.81	3.72	0.37	Mean	CU	1.25	4.76	6.88	8.21	7.02	4.24	0.70	33.10
CIR		1.50	3.61	5.97	7.51	6.37	3.04	0.10	CIR	0.54	3.57	5.96	7.42	6.35	3.45	0.26	27.58	
Max	CU	3.44	6.98	9.52	9.57	7.91	4.82	0.55	Max	CU	1.94	6.38	8.98	9.34	8.33	5.28	0.98	37.94
CIR		3.29	6.62	9.14	9.43	7.91	4.82	0.50	CIR	1.90	6.15	8.98	9.21	8.16	5.01	0.98	35.33	
Min	CU	1.45	3.74	5.04	6.66	5.84	2.33	0.20	Min	CU	0.76	3.27	5.01	6.76	5.45	2.43	0.31	27.50
CIR		0.00	0.00	1.60	5.52	4.70	0.00	0.00	CIR	0.00	0.00	1.67	3.98	2.89	0.00	0.00	16.87	
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY									
Mean	CU	2.33	5.06	6.87	7.83	6.47	3.54	0.36	Mean	CU	1.19	4.52	6.56	7.83	6.67	4.03	0.67	31.52
CIR		1.39	3.36	5.64	7.13	6.03	2.86	0.09	CIR	0.49	3.35	5.64	7.05	6.00	3.25	0.24	26.04	
Max	CU	3.28	6.64	9.08	9.13	7.51	4.58	0.53	Max	CU	1.84	6.07	8.57	8.91	7.91	5.02	0.94	36.13
CIR		3.13	6.28	8.70	8.99	7.51	4.58	0.47	CIR	1.80	5.85	8.57	8.78	7.74	4.75	0.94	33.54	
Min	CU	1.38	3.56	4.80	6.35	5.55	2.22	0.19	Min	CU	0.73	3.11	4.78	6.45	5.18	2.31	0.29	26.18
CIR		0.00	0.00	1.36	5.13	4.40	0.00	0.00	CIR	0.00	0.00	1.43	3.63	2.59	0.00	0.00	15.75	
LAWN GRASS									LAWN GRASS									
Mean	CU	2.54	5.22	7.00	7.68	6.47	3.77	0.38	Mean	CU	1.30	4.66	6.69	7.68	6.67	4.29	0.71	32.04
CIR		1.58	3.51	5.77	6.98	6.03	3.08	0.11	CIR	0.57	3.48	5.77	6.90	6.00	3.50	0.27	26.51	
Max	CU	3.57	6.84	9.25	8.96	7.51	4.88	0.56	Max	CU	2.01	6.25	8.73	8.74	7.91	5.35	1.00	36.74
CIR		3.42	6.48	8.87	8.82	7.51	4.88	0.50	CIR	1.97	6.03	8.73	8.61	7.74	5.08	1.00	34.15	
Min	CU	1.50	3.67	4.90	6.23	5.55	2.36	0.20	Min	CU	0.79	3.20	4.88	6.32	5.18	2.46	0.31	26.56
CIR		0.00	0.00	1.46	4.97	4.40	0.00	0.00	CIR	0.00	0.00	1.52	3.49	2.59	0.00	0.00	15.88	
SPRING GRAINS									SPRING GRAINS									
Mean	CU	--	2.91	7.44	7.97	1.92	--	--	Mean	CU	--	2.57	7.07	7.95	1.97	--	--	19.58
CIR		--	1.40	6.21	7.31	1.50	--	--	CIR		--	1.56	6.18	7.20	1.40	--	--	16.32
Max	CU	--	3.82	9.86	9.22	2.24	--	--	Max	CU	--	3.49	9.31	9.00	2.35	--	--	23.20
CIR		--	3.46	9.48	9.08	2.24	--	--	CIR		--	3.37	9.31	8.87	2.23	--	--	21.68
Min	CU	--	2.05	5.22	6.42	1.65	--	--	Min	CU	--	1.79	5.04	6.51	1.54	--	--	16.13
CIR		--	0.00	1.78	5.21	0.44	--	--	CIR		--	0.00	1.85	3.70	0.00	--	--	9.50
WINTER WHEAT									CU and CIR are in inches.									
Mean	CU	0.75	4.19	7.71	7.66	1.72	--	--	Mean	CU	--	2.57	7.07	7.95	1.97	--	--	19.58
CIR		0.16	2.51	6.48	7.01	1.29	--	--	CIR		--	1.56	6.18	7.20	1.40	--	--	16.32
Max	CU	1.05	5.50	10.21	8.87	2.00	--	--	Max	CU	--	3.49	9.31	9.00	2.35	--	--	23.20
CIR		1.00	5.14	9.83	8.73	2.00	--	--	CIR		--	3.37	9.31	8.87	2.23	--	--	21.68
Min	CU	0.44	2.95	5.41	6.17	1.48	--	--	Min	CU	--	1.79	5.04	6.51	1.54	--	--	16.13
CIR		0.00	0.00	1.97	4.90	0.24	--	--	CIR		--	0.00	1.85	3.70	0.00	--	--	9.50
CORN									CU and CIR are in inches.									
Mean	CU	--	1.23	3.95	7.59	8.11	4.48	0.21	Mean	CU	--	2.57	7.07	7.95	1.97	--	--	19.58
CIR		--	0.31	2.74	6.93	7.68	3.83	0.04	CIR		--	1.56	6.18	7.20	1.40	--	--	16.32
Max	CU	--	1.61	5.24	8.78	9.43	5.71	0.30	Max	CU	--	3.49	9.31	9.00	2.35	--	--	23.20
CIR		--	1.30	4.86	8.64	9.43	5.71	0.26	CIR		--	3.37	9.31	8.87	2.23	--	--	21.68
Min	CU	--	0.86	2.77	6.11	6.96	2.76	0.11	Min	CU	--	1.79	5.04	6.51	1.54	--	--	16.13
CIR		--	0.00	0.00	4.82	5.84	0.00	0.00	CIR		--	0.00	1.85	3.70	0.00	--	--	9.50
DRY BEANS									CU and CIR are in inches.									
Mean	CU	--	--	2.90	7.89	6.73	1.31	--	Mean	CU	--	2.90	7.89	6.73	1.31	--	--	18.87
CIR		--	--	1.75	7.23	6.31	0.78	--	CIR		--	1.75	7.23	6.31	0.78	--	--	16.15
Max	CU	--	--	3.84	9.13	7.83	1.67	--	Max	CU	--	3.84	9.13	7.83	1.67	--	--	21.60
CIR		--	--	3.54	8.99	7.83	1.67	--	CIR		--	3.54	8.99	7.83	1.67	--	--	19.63
Min	CU	--	--	2.03	6.35	5.78	0.81	--	Min	CU	--	2.03	6.35	5.78	0.81	--	--	17.07
CIR		--	--	0.00	5.13	4.64	0.00	--	CIR		--	0.00	5.13	4.64	0.00	--	--	12.83
POTATOES									CU and CIR are in inches.									
Mean	CU	--	0.77	4.02	8.04	7.42	1.96	--	Mean	CU	--	0.77	4.02	8.04	7.42	--	--	22.27
CIR		--	0.14	2.81	7.39	6.99	1.40	--	CIR		--	0.14	2.81	7.39	6.99	--	--	18.81
Max	CU	--	1.01	5.33	9.31	8.63	2.50	--	Max	CU	--	1.01	5.33	9.31	8.63	--	--	25.55
CIR		--	0.77	4.95	9.17	8.63	2.50	--	CIR		--	0.77	4.95	9.17	8.63	--	--	23.08
Min	CU	--	0.54	2.82	6.48	6.37	1.21	--	Min	CU	--	0.54	2.82	6.48	6.37	--	--	20.06
CIR		--	0.00	0.00	5.28	5.24	0.00	--	CIR		--	0.00	0.00	5.28	5.24	--	--	15.01
SUGAR BEETS									CU and CIR are in inches.									
Mean	CU	0.37	2.45	5.40	8.35	7.56	4.01	--	Mean	CU	0.37	2.45	5.40	8.35	7.56	4.01	--	28.21
CIR		0.03	1.03	4.17	7.69	7.13	3.37	--	CIR		0.03	1.03	4.17	7.69	7.13	3.37	--	23.54
Max	CU	0.53	3.22	7.16	9.66	8.79	5.12	--	Max	CU	0.53	3.22	7.16	9.66	8.79	5.12	--	32.33
CIR		0.50	2.86	6.78	9.52	8.79	5.12	--	CIR		0.50	2.86	6.78	9.52	8.79	5.12	--	29.38
Min	CU	0.22	1.73	3.79	6.72	6.49	2.48	--	Min	CU	0.22	1.73	3.79	6.72	6.49	2.48	--	25.13
CIR		0.00	0.00	0.35	5.59	5.36	0.00	--	CIR		0.00	0.00	0.35	5.59	5.36	0.00	--	18.89

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

SAGE									SARATOGA								
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	
ALFALFA HAY																	
Mean	CU 0.55	4.33	5.78	6.52	4.80	2.03	--	24.09	Mean	CU 1.59	5.34	6.88	7.71	6.16	3.56	--	31.44
CIR	0.06	3.24	4.67	5.79	4.03	0.94	--	18.81	CIR	0.80	4.14	5.85	6.62	5.24	2.74	--	25.78
Max	CU 0.79	5.73	7.48	7.57	5.69	2.61	--	27.85	Max	CU 2.17	6.39	8.50	9.05	7.53	4.36	--	36.24
CIR	0.73	5.47	7.35	7.57	5.25	2.28	--	24.83	CIR	1.96	6.24	8.32	8.33	6.92	4.21	--	32.08
Min	CU 0.30	2.82	4.34	5.47	3.80	1.41	--	20.42	Min	CU 1.01	3.34	4.72	6.54	5.09	2.38	--	25.83
CIR	0.00	0.26	1.51	4.19	1.72	0.00	--	11.94	CIR	0.00	0.74	2.41	4.54	3.06	0.00	--	19.74
PASTURE GRASS AND GRASS HAY																	
Mean	CU 0.52	4.12	5.51	6.20	4.57	1.94	--	22.96	Mean	CU 1.51	5.08	6.56	7.35	5.83	3.36	--	29.90
CIR	0.06	3.04	4.40	5.48	3.81	0.87	--	17.72	CIR	0.73	3.89	5.53	6.26	4.91	2.55	--	24.25
Max	CU 0.75	5.46	7.13	7.21	5.43	2.49	--	26.54	Max	CU 2.07	6.08	8.11	8.63	7.13	4.12	--	34.47
CIR	0.69	5.20	7.00	7.21	5.01	2.17	--	23.57	CIR	1.86	5.93	7.93	7.94	6.54	3.97	--	30.30
Min	CU 0.28	2.69	4.14	5.21	3.62	1.35	--	19.47	Min	CU 0.96	3.18	4.50	6.23	4.82	2.24	--	24.55
CIR	0.00	0.13	1.31	3.91	1.51	0.00	--	10.98	CIR	0.00	0.58	2.19	4.17	2.77	0.00	--	18.47
MOUNTAIN MEADOW HAY																	
Mean	CU 0.60	4.65	6.57	7.71	5.80	2.47	--	27.91	Mean	CU 1.77	5.85	7.82	8.86	6.82	3.96	--	35.31
CIR	0.07	3.57	5.46	6.98	5.04	1.30	--	22.50	CIR	0.96	4.66	6.79	7.77	5.89	3.12	--	29.62
Max	CU 0.86	6.17	8.51	8.95	6.88	3.16	--	32.20	Max	CU 2.41	7.00	9.67	10.41	8.33	4.85	--	40.70
CIR	0.80	5.90	8.38	8.95	6.39	2.80	--	29.12	CIR	2.18	6.85	9.49	9.67	7.68	4.70	--	36.54
Min	CU 0.33	3.03	4.94	6.47	4.60	1.71	--	23.76	Min	CU 1.12	3.66	5.37	7.52	5.64	2.64	--	29.03
CIR	0.00	0.47	2.11	5.25	2.68	0.00	--	15.30	CIR	0.00	1.06	3.06	5.55	3.63	0.00	--	22.95
LAWN GRASS																	
Mean	CU 0.56	4.17	5.62	6.39	5.24	2.53	--	24.60	Mean	CU 1.65	5.24	6.69	7.35	6.16	4.06	--	31.33
CIR	0.06	3.08	4.51	5.67	4.48	1.35	--	19.22	CIR	0.85	4.04	5.66	6.26	5.24	3.22	--	25.65
Max	CU 0.81	5.52	7.27	7.43	6.22	3.24	--	28.31	Max	CU 2.25	6.26	8.27	8.63	7.53	4.97	--	36.09
CIR	0.75	5.26	7.14	7.43	5.76	2.88	--	25.27	CIR	2.03	6.11	8.09	7.94	6.92	4.82	--	31.93
Min	CU 0.31	2.71	4.22	5.37	4.15	1.75	--	20.94	Min	CU 1.05	3.27	4.59	6.23	5.09	2.71	--	25.77
CIR	0.00	0.15	1.39	4.08	2.15	0.00	--	12.46	CIR	0.00	0.67	2.28	4.17	3.06	0.00	--	19.21
SPRING GRAINS																	
Mean	CU --	2.33	5.96	6.64	1.56	--	--	16.54	Mean	CU --	2.89	7.05	7.54	1.81	--	--	19.45
CIR	--	1.29	4.85	5.94	0.85	--	--	12.94	CIR	--	1.75	6.08	6.52	0.89	--	--	15.49
Max	CU --	3.08	7.75	7.64	1.85	--	--	19.60	Max	CU --	3.50	8.81	8.88	2.24	--	--	22.80
CIR	--	2.84	7.62	7.64	1.71	--	--	17.73	CIR	--	3.35	8.63	8.17	1.91	--	--	20.28
Min	CU --	1.52	4.50	5.52	1.24	--	--	14.09	Min	CU --	1.83	4.89	6.42	1.50	--	--	16.10
CIR	--	0.00	1.67	4.25	0.00	--	--	8.69	CIR	--	0.00	2.58	4.39	0.00	--	--	11.27
WINTER WHEAT																	
Mean	CU 0.56	3.35	6.17	6.38	1.40	--	--	17.87	Mean	CU 0.76	4.15	7.30	7.25	1.62	--	--	21.33
CIR	0.07	2.25	5.06	5.69	0.71	--	--	13.71	CIR	0.21	2.96	6.33	6.23	0.71	--	--	16.83
Max	CU 0.82	4.44	8.03	7.35	1.65	--	--	21.35	Max	CU 1.06	5.03	9.13	8.54	2.00	--	--	25.14
CIR	0.76	4.18	7.90	7.35	1.53	--	--	18.71	CIR	0.92	4.88	8.95	7.86	1.68	--	--	22.34
Min	CU 0.30	2.18	4.66	5.31	1.11	--	--	15.02	Min	CU 0.49	2.63	5.07	6.17	1.34	--	--	17.16
CIR	0.00	0.00	1.83	4.03	0.00	--	--	9.26	CIR	0.00	0.03	2.76	4.09	0.00	--	--	11.42

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

SEMINOE DAM									SHERIDAN									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	
ALFALFA HAY	--								ALFALFA HAY	--								
Mean	CU	1.24	4.61	6.74	7.97	6.63	3.74	--	Mean	CU	2.39	5.13	6.40	8.00	6.83	3.77	0.92	33.42
CIR	0.18	2.58	5.37	6.94	5.83	2.73	--	23.62	CIR	0.99	2.73	3.77	7.02	5.89	2.42	0.18	23.02	
Max	CU	1.92	6.19	9.09	9.15	7.88	4.74	--	Max	CU	3.81	7.30	9.40	9.33	8.58	4.87	1.34	39.25
CIR	1.21	5.15	8.86	8.86	7.60	4.70	--	28.84	CIR	3.78	7.06	8.85	8.96	8.14	4.58	1.33	32.26	
Min	CU	0.55	3.20	5.00	6.52	5.37	2.38	--	Min	CU	1.22	4.00	4.69	6.04	5.36	2.12	0.55	28.71
CIR	0.00	0.00	2.26	4.47	3.23	0.00	--	16.51	CIR	0.00	0.00	0.00	2.54	1.41	0.00	0.00	12.91	
PASTURE GRASS AND GRASS HAY	--								PASTURE GRASS AND GRASS HAY	--								
Mean	CU	1.18	4.39	6.43	7.60	6.28	3.53	--	Mean	CU	2.26	4.89	6.11	7.63	6.48	3.58	0.88	31.81
CIR	0.16	2.39	5.06	6.57	5.48	2.54	--	22.17	CIR	0.90	2.50	3.51	6.65	5.54	2.24	0.16	21.52	
Max	CU	1.83	5.89	8.67	8.72	7.46	4.48	--	Max	CU	3.60	6.96	8.96	8.90	8.15	4.63	1.28	37.37
CIR	1.12	4.85	8.44	8.44	7.18	4.44	--	27.11	CIR	3.57	6.72	8.41	8.54	7.73	4.35	1.26	30.42	
Min	CU	0.52	3.05	4.77	6.21	5.08	2.25	--	Min	CU	1.16	3.81	4.47	5.76	5.09	2.01	0.52	27.33
CIR	0.00	0.00	2.02	4.12	2.94	0.00	--	15.32	CIR	0.00	0.00	0.00	2.26	1.14	0.00	0.00	11.76	
MOUNTAIN MEADOW HAY	--								LAWN GRASS	--								
Mean	CU	1.37	5.05	7.66	9.16	7.34	4.15	--	Mean	CU	2.36	4.61	5.70	6.89	5.99	3.63	0.91	30.06
CIR	0.26	2.99	6.29	8.13	6.54	3.14	--	27.13	CIR	0.98	2.23	3.15	5.91	5.05	2.29	0.17	19.79	
Max	CU	2.13	6.78	10.34	10.52	8.72	5.27	--	Max	CU	3.77	6.56	8.36	8.04	7.53	4.69	1.32	35.28
CIR	1.42	5.74	10.11	10.22	8.44	5.23	--	32.71	CIR	3.74	6.32	7.81	7.70	7.15	4.40	1.31	28.30	
Min	CU	0.61	3.51	5.69	7.49	5.94	2.65	--	Min	CU	1.21	3.59	4.17	5.20	4.70	2.04	0.54	25.82
CIR	0.00	0.00	2.95	5.57	3.80	0.20	--	19.53	CIR	0.00	0.00	0.00	1.70	0.75	0.00	0.00	10.58	
LAWN GRASS	--								SPRING GRAINS	--								
Mean	CU	1.28	4.52	6.55	7.60	6.63	4.26	--	Mean	CU	0.77	4.17	6.85	5.73	--	--	--	17.53
CIR	0.21	2.50	5.18	6.57	5.83	3.24	--	23.36	CIR	0.10	1.80	4.17	4.65	--	--	--	10.67	
Max	CU	1.99	6.07	8.84	8.72	7.88	5.40	--	Max	CU	1.24	5.95	10.17	6.65	--	--	--	22.57
CIR	1.28	5.03	8.61	8.44	7.60	5.36	--	28.47	CIR	1.21	5.71	9.62	6.36	--	--	--	18.54	
Min	CU	0.57	3.14	4.87	6.21	5.37	2.71	--	Min	CU	0.40	3.26	5.07	4.30	--	--	--	14.72
CIR	0.00	0.00	2.12	4.12	3.23	0.29	--	16.38	CIR	0.00	0.00	0.00	0.80	--	--	--	5.01	
SPRING GRAINS	--								WINTER WHEAT	--								
Mean	CU	--	2.49	6.94	7.86	1.96	--	--	Mean	CU	1.90	5.26	6.68	5.13	--	--	--	18.97
CIR	--	0.82	5.63	6.87	1.18	--	--	14.52	CIR	0.70	2.83	4.00	4.05	--	--	--	11.54	
Max	CU	--	3.39	9.42	8.98	2.35	--	--	Max	CU	3.05	7.50	9.91	5.96	--	--	--	24.35
CIR	--	2.35	9.19	8.84	2.11	--	--	19.60	CIR	3.02	7.26	9.36	5.70	--	--	--	20.08	
Min	CU	--	1.76	4.84	6.39	1.60	--	--	Min	CU	0.98	4.11	4.95	3.86	--	--	--	15.46
CIR	--	0.00	2.44	4.33	0.00	--	--	9.82	CIR	0.00	0.00	0.00	0.36	--	--	--	5.35	
WINTER WHEAT	--								CORN	--								
Mean	CU	0.61	3.59	7.19	7.56	1.75	--	--	Mean	CU	--	1.14	3.48	7.44	8.21	4.56	0.24	25.11
CIR	0.03	1.69	5.88	6.57	0.98	--	--	15.12	CIR	--	0.08	1.35	6.36	7.22	3.19	0.01	18.28	
Max	CU	0.94	4.88	9.76	8.64	2.10	--	--	Max	CU	--	1.62	5.17	8.64	10.34	5.85	0.34	28.00
CIR	0.67	3.84	9.53	8.50	1.87	--	--	20.59	CIR	--	1.38	4.62	8.29	9.81	5.51	0.34	24.09	
Min	CU	0.27	2.53	5.01	6.15	1.43	--	--	Min	CU	--	0.89	2.58	5.59	6.45	2.54	0.14	21.55
CIR	0.00	0.00	2.63	4.05	0.00	--	--	10.06	CIR	--	0.00	0.00	2.09	2.50	0.00	0.00	10.72	

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

SOUTH PASS CITY									SUNDANCE								
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	
ALFALFA HAY																	
Mean CU	--	2.75	4.80	6.20	4.58	0.31	--	18.56	Mean CU	1.70	4.63	6.09	7.88	6.74	4.18	0.68	31.89
CIR	--	1.05	3.09	5.40	3.57	0.06	--	13.10	CIR	0.40	2.13	3.12	6.01	5.12	2.86	0.07	19.72
Max CU	--	3.90	6.47	7.01	5.68	0.40	--	20.91	Max CU	2.41	6.39	8.64	9.42	7.70	4.86	0.92	37.98
CIR	--	3.68	6.25	6.80	5.49	0.36	--	16.38	CIR	1.92	4.11	7.09	8.21	7.30	4.66	0.74	27.60
Min CU	--	2.09	3.61	5.55	3.72	0.17	--	16.26	Min CU	1.02	3.75	4.87	6.46	5.66	3.00	0.40	28.47
CIR	--	0.00	0.49	4.01	0.30	0.00	--	9.67	CIR	0.00	0.00	0.00	2.67	2.68	0.00	0.00	12.29
PASTURE GRASS AND GRASS HAY																	
Mean CU	--	2.60	4.58	5.91	4.37	0.30	--	17.69	Mean CU	1.62	4.40	5.81	7.51	6.40	3.98	0.65	30.37
CIR	--	0.95	2.87	5.11	3.37	0.06	--	12.27	CIR	0.36	1.94	2.86	5.65	4.78	2.67	0.07	18.32
Max CU	--	3.70	6.18	6.68	5.43	0.38	--	19.93	Max CU	2.29	6.08	8.25	8.99	7.31	4.62	0.88	36.17
CIR	--	3.48	5.96	6.47	5.24	0.34	--	15.43	CIR	1.81	3.80	6.70	7.79	6.92	4.43	0.70	25.85
Min CU	--	1.98	3.44	5.29	3.55	0.17	--	15.50	Min CU	0.97	3.57	4.65	6.17	5.38	2.85	0.38	27.11
CIR	--	0.00	0.31	3.73	0.13	0.00	--	9.02	CIR	0.00	0.00	0.00	2.33	2.36	0.00	0.00	11.14
MOUNTAIN MEADOW HAY																	
Mean CU	--	3.30	5.46	7.19	5.41	0.37	--	21.64	Mean CU	1.77	4.54	5.92	7.37	6.40	4.23	0.69	30.92
CIR	--	1.52	3.75	6.39	4.41	0.08	--	16.10	CIR	0.44	2.05	2.96	5.50	4.78	2.91	0.08	18.72
Max CU	--	4.69	7.37	8.13	6.72	0.48	--	24.38	Max CU	2.50	6.26	8.41	8.81	7.31	4.92	0.94	36.82
CIR	--	4.44	7.15	7.92	6.53	0.43	--	19.83	CIR	2.01	3.98	6.86	7.62	6.92	4.72	0.76	26.48
Min CU	--	2.51	4.10	6.45	4.40	0.21	--	18.96	Min CU	1.06	3.68	4.74	6.05	5.38	3.03	0.40	27.57
CIR	--	0.00	0.99	4.98	0.99	0.00	--	12.12	CIR	0.00	0.00	0.00	2.19	2.36	0.00	0.00	11.45
LAWN GRASS																	
Mean CU	--	2.95	4.67	5.97	4.89	0.38	--	18.77	Mean CU	--	2.54	6.31	7.59	1.91	--	--	18.34
CIR	--	1.21	2.96	5.17	3.89	0.09	--	13.24	CIR	--	0.52	3.33	5.72	0.56	--	--	10.13
Max CU	--	4.19	6.30	6.74	6.07	0.49	--	21.18	Max CU	--	3.50	8.96	9.07	2.18	--	--	23.09
CIR	--	3.96	6.08	6.53	5.88	0.44	--	16.68	CIR	--	1.72	7.41	7.87	1.88	--	--	15.48
Min CU	--	2.24	3.51	5.34	3.98	0.21	--	16.42	Min CU	--	2.06	5.05	6.23	1.60	--	--	16.00
CIR	--	0.00	0.38	3.78	0.56	0.00	--	9.65	CIR	--	0.00	0.00	2.40	0.00	--	--	5.48
CU and CIR are in inches.																	
SPRING GRAINS																	
Mean CU	--	2.54	6.31	7.59	1.91	--	--	--	Mean CU	--	2.54	6.31	7.59	1.91	--	--	18.34
CIR	--	0.52	3.33	5.72	0.56	--	--	--	CIR	--	0.52	3.33	5.72	0.56	--	--	10.13
Max CU	--	3.50	8.96	9.07	2.18	--	--	--	Max CU	--	3.50	8.96	9.07	2.18	--	--	23.09
CIR	--	1.72	7.41	7.87	1.88	--	--	--	CIR	--	1.72	7.41	7.87	1.88	--	--	15.48
Min CU	--	2.06	5.05	6.23	1.60	--	--	--	Min CU	--	2.06	5.05	6.23	1.60	--	--	16.00
CIR	--	0.00	0.00	2.40	0.00	--	--	--	CIR	--	0.00	0.00	2.40	0.00	--	--	5.48
WINTER WHEAT																	
Mean CU	0.69	3.65	6.53	7.30	1.70	--	--	--	Mean CU	0.69	3.65	6.53	7.30	1.70	--	--	19.88
CIR	0.06	1.30	3.55	5.43	0.44	--	--	--	CIR	0.06	1.30	3.55	5.43	0.44	--	--	10.78
Max CU	0.98	5.03	9.28	8.73	1.95	--	--	--	Max CU	0.98	5.03	9.28	8.73	1.95	--	--	25.09
CIR	0.58	2.95	7.73	7.53	1.65	--	--	--	CIR	0.58	2.95	7.73	7.53	1.65	--	--	16.75
Min CU	0.42	2.96	5.23	5.99	1.43	--	--	--	Min CU	0.42	2.96	5.23	5.99	1.43	--	--	17.33
CIR	0.00	0.00	0.15	2.12	0.00	--	--	--	CIR	0.00	0.00	0.15	2.12	0.00	--	--	5.44
CORN																	
Mean CU	--	1.07	3.35	7.23	8.03	4.96	0.26	24.89	Mean CU	--	1.07	3.35	7.23	8.03	4.96	0.26	24.89
CIR	--	0.01	0.91	5.36	6.42	3.61	0.01	16.32	CIR	--	0.01	0.91	5.36	6.42	3.61	0.01	16.32
Max CU	--	1.47	4.76	8.64	9.18	5.76	0.35	28.48	Max CU	--	1.47	4.76	8.64	9.18	5.76	0.35	28.48
CIR	--	0.13	3.21	7.45	8.76	5.55	0.17	20.87	CIR	--	0.13	3.21	7.45	8.76	5.55	0.17	20.87
Min CU	--	0.87	2.68	5.93	6.75	3.55	0.15	22.87	Min CU	--	0.87	2.68	5.93	6.75	3.55	0.15	22.87
CIR	--	0.00	0.00	2.05	3.93	0.00	0.00	0.00	CIR	--	0.00	0.00	2.05	3.93	0.00	0.00	11.22
CU and CIR are in inches.																	

Table 9. CU and CIR Estimates, continued

	SUNSHINE							TEN SLEEP									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	
ALFALFA HAY									ALFALFA HAY								
Mean	CU 0.43	4.03	5.57	6.48	5.42	2.97	0.59	25.50	Mean	CU 3.20	5.31	7.01	8.13	6.66	3.52	0.76	34.51
CIR	0.01	1.77	3.32	4.95	4.14	1.80	0.18	16.20	CIR	1.79	3.21	5.25	7.39	5.86	2.41	0.16	25.90
Max	CU 0.65	5.61	7.35	7.66	6.59	4.11	0.90	30.49	Max	CU 4.43	6.99	8.87	9.26	7.95	4.61	1.09	38.10
CIR	0.18	5.14	6.76	7.35	6.18	4.11	0.75	25.59	CIR	4.27	6.21	7.89	9.06	7.91	4.42	0.94	30.81
Min	CU 0.20	2.62	3.51	4.62	4.48	1.68	0.04	21.83	Min	CU 1.98	4.01	4.85	6.83	5.84	2.21	0.43	30.57
CIR	0.00	0.00	0.00	1.37	0.02	0.00	0.00	10.30	CIR	0.00	0.00	0.70	5.06	3.15	0.00	0.00	18.48
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY								
Mean	CU 0.41	3.83	5.32	6.18	5.14	2.82	0.56	24.28	Mean	CU 3.03	5.06	6.69	7.75	6.32	3.35	0.72	32.84
CIR	0.01	1.61	3.08	4.65	3.87	1.66	0.17	15.08	CIR	1.62	2.98	4.93	7.02	5.52	2.24	0.14	24.29
Max	CU 0.62	5.53	7.01	7.31	6.26	3.90	0.86	29.04	Max	CU 4.19	6.66	8.47	8.83	7.54	4.38	1.04	36.26
CIR	0.15	4.86	6.42	7.00	5.85	3.90	0.71	24.16	CIR	4.03	5.88	7.51	8.63	7.50	4.19	0.89	29.01
Min	CU 0.19	2.49	3.35	4.41	4.26	1.59	0.04	20.79	Min	CU 1.87	3.82	4.63	6.51	5.54	2.10	0.41	29.09
CIR	0.00	0.00	0.00	1.12	0.00	0.00	0.00	9.42	CIR	0.00	0.00	0.46	4.74	2.85	0.00	0.00	16.97
LAWN GRASS									LAWN GRASS								
Mean	CU 0.45	3.95	5.42	6.06	5.14	3.00	0.60	24.63	Mean	CU 3.17	4.77	6.24	7.00	5.85	3.39	0.75	31.08
CIR	0.01	1.71	3.17	4.53	3.87	1.83	0.19	15.34	CIR	1.75	2.72	4.47	6.27	5.04	2.28	0.15	22.53
Max	CU 0.67	5.70	7.14	7.17	6.26	4.16	0.91	29.47	Max	CU 4.39	6.28	7.90	7.97	6.97	4.44	1.08	34.41
CIR	0.20	5.03	6.55	6.86	5.85	4.16	0.76	24.54	CIR	4.23	5.50	6.97	7.77	6.93	4.25	0.92	27.14
Min	CU 0.21	2.57	3.41	4.32	4.26	1.70	0.04	21.05	Min	CU 1.96	3.60	4.32	5.88	5.13	2.13	0.42	27.52
CIR	0.00	0.00	0.00	1.02	0.00	0.00	0.00	9.55	CIR	0.00	0.00	0.11	4.11	2.43	0.00	0.00	15.44
SPRING GRAINS									SPRING GRAINS								
Mean	CU --	2.18	5.70	6.23	1.52	--	--	15.64	Mean	CU 0.81	4.36	7.64	5.78	--	--	--	18.57
CIR	--	0.44	3.50	4.72	0.50	--	--	9.18	CIR	0.10	2.38	5.88	5.06	--	--	--	13.38
Max	CU --	3.19	7.62	7.38	1.86	--	--	19.35	Max	CU 1.10	5.69	9.61	6.60	--	--	--	21.51
CIR	--	2.52	7.03	7.07	1.60	--	--	16.28	CIR	0.94	4.91	8.57	6.42	--	--	--	17.24
Min	CU --	1.44	3.53	4.45	1.24	--	--	12.03	Min	CU 0.49	3.26	5.25	4.87	--	--	--	14.67
CIR	--	0.00	0.00	1.17	0.00	--	--	3.43	CIR	0.00	0.00	1.10	3.01	--	--	--	6.90
WINTER WHEAT									WINTER WHEAT								
Mean	CU 0.52	3.13	5.90	6.00	1.36	--	--	16.89	Mean	CU 1.99	5.50	7.45	5.18	--	--	--	20.09
CIR	0.02	1.04	3.69	4.48	0.39	--	--	9.63	CIR	0.73	3.44	5.68	4.46	--	--	--	14.28
Max	CU 0.79	4.58	7.89	7.10	1.66	--	--	21.04	Max	CU 2.69	7.18	9.36	5.91	--	--	--	23.42
CIR	0.32	3.91	7.30	6.79	1.41	--	--	17.24	CIR	2.53	6.40	8.34	5.75	--	--	--	18.55
Min	CU 0.25	2.07	3.65	4.28	1.11	--	--	13.05	Min	CU 1.20	4.12	5.12	4.36	--	--	--	15.88
CIR	0.00	0.00	0.00	0.97	0.00	--	--	4.11	CIR	0.00	0.00	0.97	2.47	--	--	--	7.07
CORN																	
Mean	CU --	1.19	3.89	7.51	8.03	4.21	0.20	24.96	Mean	CU --	2.23	6.79	7.26	3.02	0.01	19.29	
CIR	--	0.11	2.38	5.68	5.06	--	--	--	CIR	--	2.38	5.68	5.06	--	--	--	
Max	CU --	1.55	4.88	8.57	9.57	5.53	0.30	27.80	Max	CU --	4.28	8.37	9.53	5.34	0.16	24.15	
CIR	--	0.77	4.28	8.37	9.53	5.34	0.16	--	Min	CU --	2.67	6.32	7.03	2.65	0.11	21.93	
Min	CU --	0.89	2.67	6.32	7.03	2.65	0.11	--	CIR	--	4.55	4.35	0.00	0.00	12.23		
DRY BEANS																	
Mean	CU --	--	2.85	7.81	6.67	1.23	--	--	Mean	CU --	--	1.29	7.09	5.90	0.41	--	18.51
CIR	--	--	1.29	7.09	5.90	0.41	--	--	CIR	--	--	3.58	8.91	7.95	1.61	--	14.59
Max	CU --	--	3.13	8.71	7.91	1.42	--	--	Max	CU --	--	3.13	8.71	7.91	1.42	--	20.27
CIR	--	--	1.96	6.57	5.84	0.77	--	--	Min	CU --	--	0.00	4.80	3.15	0.00	--	18.17
Min	CU --	--	0.00	4.93	3.75	0.00	--	--	CIR	--	--	0.00	4.93	3.75	0.00	--	16.85
POTATOES																	
Mean	CU --	0.74	3.95	7.96	7.35	1.84	--	--	Mean	CU --	0.02	2.29	7.24	6.58	0.85	--	21.79
CIR	--	0.02	2.29	7.24	6.58	0.85	--	--	CIR	--	0.97	4.97	9.08	8.76	2.42	--	23.78
Max	CU --	0.97	4.97	9.08	8.76	2.42	--	--	Max	CU --	0.21	4.35	8.88	8.72	2.23	--	20.96
CIR	--	0.21	4.35	8.88	8.72	2.23	--	--	Min	CU --	0.56	2.71	6.70	6.44	1.16	--	19.59
Min	CU --	0.00	0.00	4.93	3.75	0.00	--	--	CIR	--	0.00	0.00	5.18	3.87	0.00	--	11.96
SUGAR BEETS																	
Mean	CU 0.37	2.38	5.31	8.26	7.49	3.77	--	--	Mean	CU 0.02	0.69	3.58	7.54	6.72	2.61	--	27.51
CIR	0.02	0.69	3.58	7.54	6.72	2.61	--	--	CIR	0.50	3.11	6.67	9.43	8.92	4.95	--	30.23
Max	CU 0.50	3.11	6.67	9.43	8.92	4.95	--	--	Max	CU 0.34	2.33	5.87	9.23	8.88	4.76	--	25.40
CIR	0.22	1.78	3.65	6.95	6.56	2.37	--	--	Min	CU 0.22	1.78	3.65	6.95	6.56	2.37	--	24.20
Min	CU 0.00	0.00	0.00	5.18	3.87	0.00	--	--	CIR	0.00	0.00	0.00	5.18	3.87	0.00	--	14.10

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

THERMOPOLIS									TORRINGTON								
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON	
ALFALFA HAY									ALFALFA HAY								
Mean CU	3.22	5.24	6.73	7.60	6.33	3.52	0.68	33.44	Mean CU	3.80	5.67	7.14	8.10	6.56	4.14	0.96	36.42
CIR	1.93	3.20	4.79	6.46	5.29	2.44	0.24	24.48	CIR	2.07	3.36	4.99	6.36	5.46	3.14	0.36	25.83
Max CU	4.32	7.68	9.90	9.10	7.77	4.95	1.11	40.25	Max CU	5.34	7.31	8.52	9.30	8.03	5.15	1.20	41.08
CIR	4.26	6.49	9.70	8.94	7.54	4.89	0.83	35.94	CIR	3.96	6.90	7.37	9.08	7.68	4.96	1.01	33.54
Min CU	1.68	3.90	4.26	6.07	5.03	1.86	0.35	27.93	Min CU	2.47	4.29	5.47	7.04	5.37	2.86	0.64	31.99
CIR	0.09	0.00	0.00	3.08	2.66	0.00	0.00	15.92	CIR	0.00	0.26	0.27	3.97	3.38	0.00	0.00	14.13
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY								
Mean CU	3.04	5.00	6.42	7.25	6.01	3.34	0.65	31.83	Mean CU	3.59	5.40	6.81	7.72	6.23	3.93	0.91	34.66
CIR	1.76	2.98	4.48	6.10	4.97	2.27	0.22	22.90	CIR	1.87	3.09	4.66	5.99	5.13	2.94	0.33	24.09
Max CU	4.09	7.32	9.44	8.68	7.37	4.70	1.05	38.30	Max CU	5.05	6.97	8.13	8.87	7.62	4.89	1.14	39.08
CIR	4.03	6.18	9.24	8.52	7.15	4.64	0.79	34.03	CIR	3.71	6.56	7.00	8.65	7.27	4.70	0.96	31.57
Min CU	1.59	3.72	4.07	5.79	4.77	1.76	0.33	26.58	Min CU	2.34	4.09	5.22	6.72	5.10	2.71	0.61	30.44
CIR	0.00	0.00	0.00	2.76	2.39	0.00	0.00	14.74	CIR	0.00	0.04	0.01	3.65	3.11	0.00	0.00	12.78
LAWN GRASS									LAWN GRASS								
Mean CU	3.18	4.71	5.99	6.54	5.56	3.39	0.67	30.14	Mean CU	3.76	5.09	6.35	6.97	5.76	3.99	0.94	32.92
CIR	1.90	2.71	4.06	5.40	4.52	2.31	0.23	21.22	CIR	2.03	2.79	4.21	5.24	4.66	2.99	0.35	22.36
Max CU	4.28	6.90	8.81	7.84	6.82	4.77	1.09	36.29	Max CU	5.28	6.57	7.59	8.01	7.04	4.96	1.18	37.23
CIR	4.22	5.80	8.61	7.68	6.61	4.71	0.81	32.01	CIR	3.91	6.16	6.49	7.79	6.69	4.77	1.00	29.69
Min CU	1.67	3.50	3.79	5.23	4.41	1.79	0.35	25.16	Min CU	2.45	3.85	4.87	6.06	4.71	2.75	0.63	28.90
CIR	0.07	0.00	0.00	2.13	2.02	0.00	0.00	13.38	CIR	0.00	0.00	0.00	2.99	2.72	0.00	0.00	11.18
SPRING GRAINS									SPRING GRAINS								
Mean CU	0.82	4.34	7.36	5.54	--	--	--	18.10	Mean CU	0.94	4.58	7.75	5.77	--	--	--	19.07
CIR	0.11	2.37	5.52	4.47	--	--	--	12.79	CIR	0.08	2.19	5.49	3.98	--	--	--	11.72
Max CU	1.16	6.26	10.71	6.91	--	--	--	22.16	Max CU	1.32	5.96	9.23	6.63	--	--	--	22.18
CIR	1.08	5.23	10.51	6.68	--	--	--	20.57	CIR	0.69	5.55	8.03	6.41	--	--	--	18.17
Min CU	0.42	3.18	4.61	4.33	--	--	--	13.42	Min CU	0.61	3.49	5.92	5.02	--	--	--	16.23
CIR	0.00	0.00	0.00	1.11	--	--	--	3.67	CIR	0.00	0.00	0.73	1.14	--	--	--	4.75
WINTER WHEAT									WINTER WHEAT								
Mean CU	2.00	5.48	7.18	4.96	--	--	--	19.66	Mean CU	2.30	5.78	7.55	5.17	--	--	--	20.85
CIR	0.83	3.43	5.33	3.90	--	--	--	13.83	CIR	0.86	3.30	5.29	3.37	--	--	--	12.85
Max CU	2.85	7.89	10.44	6.20	--	--	--	23.76	Max CU	3.24	7.51	8.99	5.94	--	--	--	24.30
CIR	2.77	6.68	10.24	5.97	--	--	--	22.59	CIR	2.19	7.10	7.81	5.72	--	--	--	20.28
Min CU	1.02	4.01	4.50	3.88	--	--	--	14.65	Min CU	1.50	4.41	5.77	4.50	--	--	--	17.90
CIR	0.00	0.00	0.00	0.61	--	--	--	4.03	CIR	0.00	0.00	0.57	0.56	--	--	--	6.41
CORN									CORN								
Mean CU	--	1.18	3.75	7.19	7.73	4.34	0.22	24.55	Mean CU	--	1.25	3.94	7.49	7.92	4.93	0.28	25.78
CIR	--	0.15	2.11	6.13	6.74	3.30	0.03	18.70	CIR	--	0.18	1.84	5.70	6.88	3.84	0.03	18.34
Max CU	--	1.71	5.45	8.98	9.46	5.94	0.35	29.56	Max CU	--	1.62	4.69	8.61	9.66	6.18	0.37	29.18
CIR	--	1.28	5.25	8.75	9.39	5.88	0.26	27.31	CIR	--	1.22	3.86	8.39	9.31	5.99	0.27	24.08
Min CU	--	0.87	2.35	5.62	6.05	2.23	0.11	19.64	Min CU	--	0.95	3.01	6.52	6.47	3.43	0.19	22.81
CIR	--	0.00	0.00	2.57	3.74	0.00	0.00	10.46	CIR	--	0.00	0.00	2.78	4.48	0.00	0.00	9.24
DRY BEANS									DRY BEANS								
Mean CU	--	2.75	7.48	6.42	1.27	--	--	18.02	Mean CU	--	2.89	7.79	6.58	1.44	--	--	18.66
CIR	--	1.31	6.42	5.43	0.50	--	--	14.03	CIR	--	1.02	6.00	5.53	0.69	--	--	13.14
Max CU	--	4.00	9.34	7.86	1.73	--	--	21.81	Max CU	--	3.44	8.95	8.03	1.80	--	--	21.04
CIR	--	3.80	9.11	7.79	1.67	--	--	21.14	CIR	--	2.80	8.73	7.68	1.61	--	--	18.30
Min CU	--	1.72	5.84	5.03	0.65	--	--	15.16	Min CU	--	2.21	6.78	5.37	1.00	--	--	16.42
CIR	--	0.00	2.82	2.66	0.00	--	--	7.96	CIR	--	0.00	3.07	3.38	0.00	--	--	8.13
POTATOES									POTATOES								
Mean CU	--	0.74	3.81	7.62	7.07	1.90	--	21.28	Mean CU	--	0.78	4.00	7.94	7.25	2.16	--	22.11
CIR	--	0.06	2.17	6.56	6.09	1.00	--	16.26	CIR	--	0.07	1.89	6.15	6.21	1.26	--	15.46
Max CU	--	1.07	5.54	9.52	8.66	2.60	--	25.59	Max CU	--	1.02	4.77	9.13	8.85	2.70	--	24.97
CIR	--	0.78	5.34	9.29	8.59	2.54	--	24.08	CIR	--	0.66	3.92	8.91	8.50	2.51	--	20.87
Min CU	--	0.54	2.39	5.96	5.54	0.97	--	17.60	Min CU	--	0.60	3.06	6.91	5.92	1.50	--	19.50
CIR	--	0.00	0.00	2.95	3.20	0.00	--	9.51	CIR	--	0.00	0.00	3.21	3.93	0.00	--	8.91
SUGAR BEETS									SUGAR BEETS								
Mean CU	0.37	2.37	5.12	7.91	7.20	3.89	--	27.05	Mean CU	0.43	2.50	5.38	8.24	7.39	4.42	--	28.33
CIR	0.04	0.80	3.34	6.85	6.22	2.86	--	20.56	CIR	0.00	0.76	3.16	6.45	6.34	3.35	--	19.95
Max CU	0.53	3.41	7.45	9.88	8.82	5.32	--	32.43	Max CU	0.60	3.25	6.41	9.47	9.01	5.54	--	31.95
CIR	0.45	2.71	7.25	9.65	8.75	5.26	--	30.21	CIR	0.12	2.84	5.39	9.25	8.66	5.35	--	26.24
Min CU	0.19	1.73	3.21	6.18	5.64	2.00	--	21.62	Min CU	0.28	1.91	4.12	7.17	6.03	3.07	--	24.98
CIR	0.00	0.00	0.00	3.20	3.31	0.00	--	11.43	CIR	0.00	0.00	0.00	3.50	4.04	0.00	--	9.37

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

TOWER FALLS										UPTON									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		
ALFALFA HAY																			
Mean CU	--	3.78	5.12	5.80	4.41	2.22	--	21.54	Mean CU	2.40	5.26	6.66	8.44	7.10	4.28	1.43	35.28		
CIR	--	1.89	3.00	4.09	2.87	0.99	--	13.09	CIR	1.15	2.96	4.34	6.56	5.64	3.17	0.61	24.18		
Max CU	--	5.13	6.69	6.86	5.38	2.91	--	24.71	Max CU	3.48	7.20	9.05	9.93	8.27	5.10	1.85	41.57		
CIR	--	3.92	5.93	5.97	5.27	2.58	--	20.09	CIR	2.99	6.44	6.91	9.38	7.37	4.98	1.72	35.34		
Min CU	--	2.78	3.71	4.49	3.23	1.17	--	17.34	Min CU	1.46	4.28	5.32	6.96	5.83	2.96	0.74	31.94		
CIR	--	0.00	0.25	0.76	0.00	0.00	--	6.93	CIR	0.00	0.64	0.47	3.13	3.77	0.00	0.00	17.43		
PASTURE GRASS AND GRASS HAY																			
Mean CU	--	3.60	4.89	5.52	4.20	2.12	--	20.53	Mean CU	2.27	5.01	6.36	8.05	6.74	4.07	1.36	33.58		
CIR	--	1.71	2.76	3.81	2.67	0.92	--	12.12	CIR	1.04	2.71	4.03	6.17	5.28	2.96	0.57	22.54		
Max CU	--	4.89	6.39	6.53	5.13	2.78	--	23.55	Max CU	3.29	6.87	8.63	9.47	7.85	4.85	1.76	39.57		
CIR	--	3.68	5.63	5.64	5.02	2.45	--	18.93	CIR	2.82	6.11	6.57	8.92	6.96	4.73	1.63	33.34		
Min CU	--	2.65	3.54	4.28	3.08	1.12	--	16.52	Min CU	1.38	4.08	5.08	6.63	5.53	2.81	0.71	30.41		
CIR	--	0.00	0.02	0.52	0.00	0.00	--	6.23	CIR	0.00	0.43	0.19	2.75	3.47	0.00	0.00	15.88		
MOUNTAIN MEADOW HAY																			
Mean CU	--	4.07	5.82	6.86	5.33	2.69	--	25.02	Mean CU	2.37	4.72	5.93	7.27	6.23	4.12	1.40	31.79		
CIR	--	2.16	3.70	5.15	3.79	1.36	--	16.47	CIR	1.13	2.42	3.62	5.38	4.77	3.02	0.60	20.72		
Max CU	--	5.52	7.61	8.12	6.51	3.53	--	28.67	Max CU	3.44	6.47	8.05	8.55	7.26	4.91	1.82	37.45		
CIR	--	4.31	6.85	7.23	6.40	3.18	--	24.05	CIR	2.96	5.71	6.10	8.01	6.43	4.79	1.69	31.22		
Min CU	--	2.99	4.22	5.31	3.90	1.42	--	20.16	Min CU	1.45	3.84	4.73	5.99	5.12	2.85	0.73	28.68		
CIR	--	0.02	0.91	1.69	0.66	0.00	--	10.15	CIR	0.00	0.17	0.00	2.01	3.06	0.00	0.00	14.21		
LAWN GRASS																			
Mean CU	--	3.64	4.98	5.69	4.82	2.76	--	22.11	Mean CU	0.82	4.28	7.21	6.02	--	--	--	18.27		
CIR	--	1.75	2.85	3.98	3.28	1.42	--	13.56	CIR	0.17	2.00	4.89	4.13	--	--	--	11.17		
Max CU	--	4.94	6.51	6.73	5.88	3.62	--	25.21	Max CU	1.19	5.87	9.79	7.08	--	--	--	22.76		
CIR	--	3.73	5.75	5.84	5.77	3.27	--	20.59	CIR	0.95	5.11	7.52	6.54	--	--	--	19.39		
Min CU	--	2.67	3.60	4.41	3.53	1.46	--	17.68	Min CU	0.50	3.48	5.76	4.96	--	--	--	16.05		
CIR	--	0.00	0.11	0.67	0.21	0.00	--	7.32	CIR	0.00	0.00	0.96	0.81	--	--	--	4.59		
SPRING GRAINS																			
Mean CU	--	0.82	4.28	7.21	6.02	--	--	--	Mean CU	2.01	5.40	7.03	5.39	--	--	--	19.77		
CIR	--	0.17	2.00	4.89	4.13	--	--	--	CIR	0.85	3.10	4.70	3.51	--	--	--	12.15		
Max CU	--	2.91	7.40	9.55	6.34	--	--	--	Max CU	2.49	6.64	7.32	5.81	--	--	--	25.02		
CIR	--	2.40	6.40	8.51	6.34	--	--	--	CIR	1.22	4.40	5.61	4.44	--	--	--	21.69		
Min CU	--	0.76	0.81	0.21	0.21	--	--	--	Min CU	0.00	0.00	0.96	0.81	--	--	--	16.96		
CIR	--	0.00	0.00	0.00	0.00	--	--	--	CIR	0.00	0.00	0.00	0.00	--	--	--	5.73		
WINTER WHEAT																			
Mean CU	--	2.01	5.40	7.03	5.39	--	--	--	Mean CU	2.01	5.40	7.03	5.39	--	--	--	19.77		
CIR	--	0.85	3.10	4.70	3.51	--	--	--	CIR	0.85	3.10	4.70	3.51	--	--	--	12.15		
Max CU	--	2.91	7.40	9.55	6.34	--	--	--	Max CU	2.49	6.64	7.32	5.81	--	--	--	25.02		
CIR	--	2.40	6.40	8.51	6.34	--	--	--	CIR	1.22	4.40	5.61	4.44	--	--	--	21.69		
Min CU	--	0.76	0.81	0.21	0.21	--	--	--	Min CU	0.00	0.00	0.96	0.81	--	--	--	16.96		
CIR	--	0.00	0.00	0.00	0.00	--	--	--	CIR	0.00	0.00	0.00	0.00	--	--	--	5.73		
CORN																			
Mean CU	--	1.17	3.67	7.82	8.55	5.14	0.26	26.50	Mean CU	0.82	4.28	7.21	6.02	--	--	--	18.44		
CIR	--	0.05	1.56	5.93	7.09	4.00	0.01	18.44	CIR	0.84	3.60	8.65	9.04	6.00	0.21	25.11			
Max CU	--	1.60	4.98	9.19	9.96	6.12	0.34	30.48	Max CU	0.95	2.93	6.44	7.02	3.55	0.14	23.87			
CIR	--	0.84	3.60	8.65	9.04	6.00	0.21	25.11	CIR	0.00	0.00	2.53	4.96	0.00	0.00	13.14			
Min CU	--	0.95	2.93	6.44	7.02	3.55	0.14	23.87	Min CU	0.00	0.00	0.00	0.00	--	--	--	13.14		

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

WAMSUTTER									WESTON								
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON
ALFALFA HAY									ALFALFA HAY								
Mean CU	1.27	4.47	6.82	7.62	6.08	3.61	--	29.90	Mean CU	3.35	5.57	6.96	8.52	7.24	4.09	0.90	36.64
CIR	0.83	3.48	6.12	6.30	4.89	2.65	--	24.73	CIR	2.17	3.16	4.52	7.21	6.23	2.90	0.27	26.46
Max CU	1.68	5.66	8.59	8.72	6.76	4.49	--	33.83	Max CU	4.83	7.12	10.02	9.88	9.02	5.17	1.22	43.34
CIR	1.48	5.42	8.59	8.54	6.41	4.28	--	30.13	CIR	4.55	6.69	9.54	9.51	8.76	4.99	1.22	39.07
Min CU	0.61	3.03	4.72	6.87	5.16	2.47	--	25.45	Min CU	2.10	4.64	5.26	6.69	5.71	2.30	0.59	31.57
CIR	0.00	1.10	2.61	4.80	3.53	0.53	--	15.66	CIR	0.00	0.00	0.28	4.29	3.51	0.00	0.00	15.58
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY								
Mean CU	1.21	4.25	6.51	7.26	5.75	3.41	--	28.43	Mean CU	3.17	5.32	6.64	8.12	6.87	3.88	0.86	34.87
CIR	0.78	3.26	5.81	5.94	4.56	2.45	--	23.26	CIR	1.99	2.94	4.20	6.81	5.86	2.70	0.24	24.75
Max CU	1.80	5.38	8.20	8.31	6.40	4.24	--	32.17	Max CU	4.57	6.79	9.56	9.42	8.56	4.91	1.17	41.26
CIR	1.40	5.15	8.20	8.14	6.06	4.01	--	28.46	CIR	4.29	6.36	9.08	9.05	8.30	4.73	1.17	37.03
Min CU	0.58	2.88	4.50	6.55	4.89	2.33	--	24.19	Min CU	1.98	4.43	5.02	6.38	5.42	2.19	0.56	30.04
CIR	0.00	0.90	2.39	4.46	3.23	0.39	--	14.40	CIR	0.00	0.00	0.03	3.98	3.22	0.00	0.00	14.29
MOUNTAIN MEADOW HAY									LAWN GRASS								
Mean CU	1.41	4.90	7.76	8.76	6.72	4.01	--	33.79	Mean CU	3.32	5.01	6.20	7.33	6.35	3.93	0.89	33.04
CIR	0.95	3.90	7.06	7.44	5.54	3.05	--	28.43	CIR	2.13	2.66	3.76	6.03	5.35	2.75	0.26	22.94
Max CU	1.87	6.20	9.77	10.02	7.48	4.98	--	38.04	Max CU	4.78	6.39	8.91	7.91	4.97	1.20	38.99	
CIR	1.67	5.96	9.77	9.82	7.11	4.75	--	34.34	CIR	4.50	5.96	8.43	8.14	7.65	4.79	1.20	34.73
Min CU	0.67	3.32	5.37	7.90	5.71	2.74	--	28.60	Min CU	2.07	4.17	4.69	5.76	5.01	2.22	0.58	28.47
CIR	0.00	1.40	3.26	5.88	4.09	0.80	--	18.77	CIR	0.00	0.00	0.00	3.36	2.81	0.00	0.00	13.02
LAWN GRASS									SPRING GRAINS								
Mean CU	1.32	4.38	6.63	7.26	6.08	4.11	--	29.99	Mean CU	0.89	4.54	7.54	6.07	--	--	--	19.05
CIR	0.87	3.39	5.93	5.94	4.89	3.15	--	24.64	CIR	0.20	2.25	5.09	4.77	--	--	--	12.35
Max CU	1.74	5.55	8.35	8.31	6.76	5.11	--	33.65	Max CU	1.28	5.80	10.84	7.05	--	--	--	24.64
CIR	1.54	5.31	8.35	8.14	6.41	4.88	--	29.93	CIR	1.13	5.37	10.36	6.68	--	--	--	23.04
Min CU	0.63	2.97	4.59	6.55	5.16	2.81	--	25.29	Min CU	0.56	3.78	5.70	4.77	--	--	--	16.35
CIR	0.00	1.02	2.48	4.46	3.53	0.87	--	15.64	CIR	0.00	0.00	0.72	2.37	--	--	--	5.04
SPRING GRAINS									WINTER WHEAT								
Mean CU	--	2.45	7.03	7.54	1.83	--	--	18.88	Mean CU	2.19	5.73	7.35	5.44	--	--	--	20.71
CIR	--	1.49	6.38	6.35	0.82	--	--	15.35	CIR	1.08	3.30	4.90	4.13	--	--	--	13.44
Max CU	--	3.10	8.90	8.56	2.01	--	--	21.94	Max CU	3.15	7.31	10.57	6.31	--	--	--	26.61
CIR	--	2.86	8.90	8.38	1.81	--	--	20.02	CIR	2.90	6.88	10.09	5.95	--	--	--	25.01
Min CU	--	1.66	4.89	6.74	1.54	--	--	15.70	Min CU	1.37	4.77	5.55	4.27	--	--	--	17.54
CIR	--	0.00	2.78	4.67	0.00	--	--	8.98	CIR	0.00	0.00	0.58	1.87	--	--	--	5.39

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

WHALEN DAM										WHEATLAND									
	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON		
ALFALFA HAY										ALFALFA HAY									
Mean CU	3.71	5.56	7.10	8.19	6.73	4.25	1.25	36.69	Mean CU	3.66	5.50	6.89	7.96	6.47	4.13	1.25	35.87		
CIR	2.14	3.38	4.98	6.28	5.74	3.17	0.59	26.07	CIR	2.21	3.40	4.94	6.29	5.41	3.06	0.63	25.94		
Max CU	5.08	7.12	8.75	9.68	8.07	5.31	1.50	40.70	Max CU	4.88	7.52	8.49	9.23	7.52	5.05	1.51	39.19		
CIR	4.62	6.91	8.23	9.58	7.99	5.08	1.33	33.40	CIR	4.22	7.48	8.03	9.12	7.50	4.80	1.38	32.19		
Min CU	2.71	4.24	4.95	6.97	5.59	2.80	0.65	32.68	Min CU	2.52	4.30	4.82	6.69	5.40	2.82	0.67	32.57		
CIR	0.00	0.00	0.00	2.94	3.18	0.00	0.00	15.22	CIR	0.00	0.00	0.20	2.31	3.16	0.00	0.00	18.15		
PASTURE GRASS AND GRASS HAY									PASTURE GRASS AND GRASS HAY										
Mean CU	3.51	5.30	6.78	7.81	6.39	4.04	1.19	34.92	Mean CU	3.46	5.25	6.58	7.59	6.14	3.93	1.20	34.13		
CIR	1.95	3.13	4.66	5.90	5.39	2.96	0.54	24.35	CIR	2.03	3.15	4.63	5.92	5.08	2.87	0.57	24.26		
Max CU	4.80	6.79	8.35	9.23	7.65	5.05	1.43	38.73	Max CU	4.61	7.17	8.10	8.81	7.13	4.80	1.44	37.29		
CIR	4.34	6.58	7.85	9.13	7.57	4.82	1.27	31.54	CIR	3.96	7.13	7.66	8.70	7.11	4.55	1.31	30.31		
Min CU	2.57	4.05	4.72	6.64	5.30	2.66	0.62	31.10	Min CU	2.38	4.10	4.60	6.38	5.12	2.68	0.64	31.00		
CIR	0.00	0.00	0.00	2.59	2.88	0.00	0.00	13.89	CIR	0.00	0.00	0.00	1.93	2.86	0.00	0.00	16.93		
LAWN GRASS									LAWN GRASS										
Mean CU	3.67	4.99	6.32	7.05	5.91	4.09	1.23	33.17	Mean CU	3.62	4.94	6.13	6.85	5.67	3.98	1.24	32.44		
CIR	2.10	2.83	4.22	5.14	4.91	3.02	0.57	22.60	CIR	2.18	2.87	4.20	5.18	4.62	2.92	0.61	22.57		
Max CU	5.02	6.39	7.79	8.33	7.08	5.11	1.48	36.79	Max CU	4.82	6.75	7.56	7.95	6.60	4.86	1.49	35.47		
CIR	4.56	6.20	7.31	8.23	7.00	4.88	1.31	29.68	CIR	4.17	6.71	7.14	7.84	6.58	4.61	1.36	28.48		
Min CU	2.68	3.81	4.40	6.00	4.90	2.69	0.64	29.59	Min CU	2.49	3.86	4.29	5.76	4.74	2.71	0.66	29.46		
CIR	0.00	0.00	0.00	1.89	2.47	0.00	0.00	12.74	CIR	0.00	0.00	0.00	1.17	2.45	0.00	0.00	15.43		
SPRING GRAINS									SPRING GRAINS										
Mean CU	0.90	4.47	7.70	5.82	--	--	--	18.83	Mean CU	0.90	4.44	7.49	5.67	--	--	--	18.51		
CIR	0.09	2.26	5.51	4.05	--	--	--	11.82	CIR	0.12	2.27	5.37	4.13	--	--	--	11.90		
Max CU	1.26	5.80	9.48	6.90	--	--	--	21.32	Max CU	1.21	6.12	9.19	6.58	--	--	--	20.95		
CIR	0.80	5.62	8.92	6.80	--	--	--	17.94	CIR	0.69	6.08	8.69	6.47	--	--	--	16.34		
Min CU	0.67	3.46	5.36	4.97	--	--	--	15.29	Min CU	0.62	3.50	5.22	4.77	--	--	--	14.95		
CIR	0.00	0.00	0.00	0.77	--	--	--	1.75	CIR	0.00	0.00	0.60	0.00	--	--	--	4.72		
WINTER WHEAT									WINTER WHEAT										
Mean CU	2.22	5.64	7.50	5.21	--	--	--	20.52	Mean CU	2.22	5.60	7.30	5.08	--	--	--	20.20		
CIR	0.88	3.38	5.32	3.44	--	--	--	12.95	CIR	1.00	3.34	5.18	3.56	--	--	--	13.09		
Max CU	3.08	7.31	9.23	6.18	--	--	--	23.51	Max CU	2.96	7.73	8.96	5.90	--	--	--	23.04		
CIR	2.62	7.10	8.69	6.08	--	--	--	19.77	CIR	2.35	7.69	8.47	5.79	--	--	--	18.28		
Min CU	1.65	4.36	5.22	4.45	--	--	--	17.08	Min CU	1.53	4.42	5.08	4.27	--	--	--	16.76		
CIR	0.00	0.00	0.00	0.21	--	--	--	3.37	CIR	0.00	0.00	0.46	0.00	--	--	--	5.92		
CORN									CORN										
Mean CU	--	1.22	3.91	7.56	8.11	5.05	0.30	26.09	Mean CU	--	1.21	3.81	7.37	7.83	4.93	0.30	25.44		
CIR	--	0.18	1.98	5.78	7.15	3.86	0.05	18.87	CIR	--	0.18	1.91	5.82	6.87	3.78	0.05	18.60		
Max CU	--	1.58	4.82	8.96	9.71	6.37	0.39	29.49	Max CU	--	1.67	4.67	8.55	9.05	6.06	0.39	27.36		
CIR	--	1.50	4.46	8.86	9.63	6.14	0.29	24.43	CIR	--	1.63	4.40	8.44	9.03	5.81	0.29	23.29		
Min CU	--	0.94	2.72	6.45	6.73	3.36	0.16	22.31	Min CU	--	0.96	2.65	6.19	6.50	3.38	0.16	22.27		
CIR	--	0.00	0.00	2.38	4.37	0.00	0.00	11.47	CIR	--	0.00	0.00	1.70	4.35	0.00	0.00	12.18		
DRY BEANS									DRY BEANS										
Mean CU	--	--	2.87	7.86	6.74	1.47	--	18.94	Mean CU	--	--	2.79	7.66	6.50	1.44	--	18.39		
CIR	--	--	1.17	6.09	5.78	0.67	--	13.71	CIR	--	--	1.16	6.12	5.54	0.67	--	13.48		
Max CU	--	--	3.53	9.32	8.07	1.86	--	21.13	Max CU	--	--	3.43	8.89	7.52	1.77	--	19.84		
CIR	--	--	3.23	9.22	7.99	1.66	--	17.60	CIR	--	--	3.22	8.78	7.50	1.64	--	17.36		
Min CU	--	--	2.00	6.71	5.59	0.98	--	16.57	Min CU	--	--	1.94	6.44	5.40	0.99	--	16.47		
CIR	--	--	0.00	2.66	3.18	0.00	--	9.28	CIR	--	--	0.00	2.00	3.16	0.00	--	10.43		
POTATOES									POTATOES										
Mean CU	--	0.76	3.98	8.01	7.42	2.21	--	22.33	Mean CU	--	0.76	3.87	7.81	7.16	2.16	--	21.76		
CIR	--	0.07	2.03	6.24	6.46	1.23	--	15.92	CIR	--	0.05	1.96	6.26	6.20	1.25	--	15.73		
Max CU	--	0.99	4.90	9.50	8.89	2.79	--	25.00	Max CU	--	1.04	4.75	9.06	8.28	2.65	--	23.42		
CIR	--	0.92	4.54	9.40	8.81	2.58	--	20.73	CIR	--	1.00	4.47	8.95	8.26	2.48	--	20.20		
Min CU	--	0.59	2.77	6.84	6.16	1.47	--	19.43	Min CU	--	0.60	2.70	6.56	5.95	1.48	--	19.36		
CIR	--	0.00	0.00	2.80	3.77	0.00	--	10.07	CIR	--	0.00	0.00	2.16	3.76	0.00	--	11.93		
SUGAR BEETS									SUGAR BEETS										
Mean CU	0.41	2.44	5.35	8.31	7.56	4.52	--	28.53	Mean CU	0.41	2.42	5.20	8.10	7.29	4.42	--	27.85		
CIR	0.01	0.78	3.25	6.54	6.60	3.34	--	20.39	CIR	0.00	0.76	3.13	6.56	6.33	3.30	--	20.09		
Max CU	0.57	3.16	6.58	9.86	9.05	5.71	--	32.03	Max CU	0.55	3.34	6.39	9.41	8.44	5.43	--	30.06		
CIR	0.19	3.04	6.16	9.76	8.97	5.48	--	25.70	CIR	0.14	3.30	6.03	9.30	8.42	5.18	--	24.74		
Min CU	0.31	1.89	3.72	7.09	6.27	3.01	--	24.47	Min CU	0.28	1.91	3.62	6.81	6.06	3.03	--	24.51		
CIR	0.00	0.00	0.00	3.08	3.89	0.00	--	11.22	CIR	0.00	0.00	0.00	2.46	3.88	0.00	--	12.85		

CU and CIR are in inches.

CU and CIR are in inches.

Table 9. CU and CIR Estimates, continued

WORLD

	APR	MAY	JUN	JUL	AUG	SEP	OCT	SEASON
ALFALFA HAY								
Mean	CU 3.52	5.99	7.63	8.50	6.99	3.76	0.94	37.36
	CIR 2.73	4.65	6.46	8.03	6.38	3.03	0.46	31.80
Max	CU 5.18	7.67	10.01	9.86	8.02	4.77	1.33	43.99
	CIR 5.13	7.59	9.56	9.84	7.96	4.77	1.10	38.15
Min	CU 2.15	4.42	5.46	6.48	5.93	2.35	0.53	32.29
	CIR 0.60	0.16	2.55	5.45	2.94	1.16	0.00	25.64
PASTURE GRASS AND GRASS HAY								
Mean	CU 3.33	5.71	7.28	8.11	6.63	3.57	0.90	35.56
	CIR 2.54	4.37	6.11	7.64	6.03	2.84	0.42	30.00
Max	CU 4.90	7.31	9.55	9.40	7.61	4.53	1.26	41.87
	CIR 4.85	7.23	9.10	9.38	7.55	4.53	1.04	36.02
Min	CU 2.04	4.21	5.21	6.18	5.63	2.23	0.50	30.74
	CIR 0.49	0.00	2.30	5.15	2.63	1.01	0.00	24.00
LAWN GRASS								
Mean	CU 3.48	5.38	6.79	7.32	6.13	3.62	0.93	33.68
	CIR 2.70	4.05	5.62	6.85	5.53	2.89	0.45	28.13
Max	CU 5.12	6.89	8.90	8.49	7.03	4.59	1.31	39.65
	CIR 5.07	6.81	8.45	8.47	6.97	4.59	1.08	33.80
Min	CU 2.13	3.97	4.86	5.58	5.20	2.26	0.52	29.02
	CIR 0.58	0.00	1.95	4.55	2.21	1.05	0.00	22.34
SPRING GRAINS								
Mean	CU 0.90	4.86	8.21	6.08	--	--	--	20.05
	CIR 0.28	3.54	7.08	5.61	--	--	--	16.54
Max	CU 1.33	6.25	10.83	7.03	--	--	--	24.77
	CIR 1.28	6.17	10.38	7.01	--	--	--	20.12
Min	CU 0.55	3.60	5.91	4.62	--	--	--	16.42
	CIR 0.00	0.00	3.00	3.59	--	--	--	11.64
WINTER WHEAT								
Mean	CU 2.20	6.13	8.00	5.45	--	--	--	21.80
	CIR 1.42	4.79	6.87	4.98	--	--	--	18.12
Max	CU 3.26	7.88	10.56	6.30	--	--	--	26.93
	CIR 3.21	7.80	10.11	6.29	--	--	--	22.39
Min	CU 1.36	4.54	5.76	4.14	--	--	--	17.86
	CIR 0.00	0.30	2.85	3.11	--	--	--	12.70
CORN								
Mean	CU --	1.33	4.17	7.90	8.38	4.57	0.23	26.57
	CIR --	0.38	3.04	7.42	7.81	3.89	0.04	22.53
Max	CU --	1.70	5.51	9.13	9.65	5.72	0.32	30.23
	CIR --	1.62	5.06	9.11	9.59	5.72	0.26	27.33
Min	CU --	0.98	3.01	6.00	7.14	2.82	0.13	22.88
	CIR --	0.00	0.10	4.97	4.16	1.74	0.00	17.96
DRY BEANS								
Mean	CU --	--	3.06	8.22	6.96	1.33	--	19.57
	CIR --	--	1.95	7.74	6.39	0.74	--	16.80
Max	CU --	--	4.04	9.50	8.02	1.67	--	22.45
	CIR --	--	3.59	9.47	7.96	1.67	--	21.04
Min	CU --	--	2.20	6.24	5.93	0.82	--	16.93
	CIR --	--	0.00	5.21	2.94	0.00	--	12.83
POTATOES								
Mean	CU --	0.83	4.24	8.37	7.67	2.00	--	23.11
	CIR --	0.15	3.11	7.90	7.10	1.34	--	19.55
Max	CU --	1.07	5.60	9.68	8.83	2.50	--	26.63
	CIR --	0.99	5.15	9.66	8.77	2.50	--	24.23
Min	CU --	0.61	3.06	6.36	6.53	1.23	--	19.95
	CIR --	0.00	0.15	5.33	3.55	0.00	--	15.36
SUGAR BEETS								
Mean	CU 0.41	2.65	5.70	8.69	7.82	4.10	--	29.36
	CIR 0.06	1.43	4.57	8.21	7.25	3.42	--	24.90
Max	CU 0.60	3.41	7.53	10.04	9.00	5.13	--	33.87
	CIR 0.55	3.33	7.08	10.02	8.94	5.13	--	30.07
Min	CU 0.25	1.96	4.11	6.60	6.66	2.53	--	25.31
	CIR 0.00	0.00	1.20	5.57	3.67	1.38	--	20.09

CU and CIR are in inches.

APPENDIX

This Appendix provides information on three items plus a list of references. Mean monthly precipitation and the period of record used to calculate the means are given in Table A1. The period of record shown extends from the first to last years used, however, there are some missing data for a few locations. Comparisons of the mean CU and CIR estimates of Table 9 versus estimates given in Report #5 (Trelease, et al., 1970) are shown in Table A2. Report #5 estimates are usually lower than Table 9 estimates. In the case of wheat, Report #5 did not distinguish between spring wheat and winter wheat. Thus, this needs to be considered when reviewing the Table A2 comparisons for wheat. Crop curves, used to determine the crop coefficients of Table 6 and 7, are given in Figures A1 and A2.

Table A1. Mean Monthly Precipitation (Inches)

Location	Period	Apr	May	Jun	Jul	Aug	Sep	Oct
AFTON	1957 - 1990	1.79	2.11	1.85	1.19	1.21	1.71	1.38
ALBIN	1941 - 1990	1.95	3.07	2.69	2.20	1.50	1.26	1.02
ALTA	1941 - 1990	1.86	2.83	2.22	1.25	1.45	1.70	1.64
ARVADA	1941 - 1977	1.28	1.99	2.78	1.04	0.92	1.00	0.87
BASIN	1941 - 1990	0.70	1.11	1.06	0.35	0.31	0.40	0.33
BEDFORD	1941 - 1990	1.83	2.56	2.18	1.03	1.39	1.68	1.53
BIG PINEY	1941 - 1990	0.74	1.24	1.00	0.84	0.89	0.91	0.62
BORDER	1941 - 1990	1.12	1.47	1.43	0.87	0.92	1.25	1.10
BOYSEN DAM	1946 - 1990	1.40	1.75	1.49	0.64	0.53	0.85	0.81
BUFFALO	1948 - 1990	1.60	2.26	2.15	1.28	0.84	1.34	0.90
CASPER	1941 - 1990	1.49	2.05	1.34	1.11	0.66	0.92	0.97
CENTENNIAL	1941 - 1990	1.34	1.62	1.45	1.59	1.29	1.13	0.87
CHEYENNE	1941 - 1990	1.53	2.48	2.21	2.00	1.58	1.09	0.85
CHUGWATER	1941 - 1990	1.79	2.88	2.40	1.99	1.33	1.10	0.96
CODY	1941 - 1990	1.00	1.70	1.65	1.03	0.79	0.99	0.66
COLONY	1941 - 1990	1.52	2.48	3.09	1.55	1.34	1.34	0.98
DOUBLE FOUR RANCH	1942 - 1990	1.69	2.73	2.28	1.81	1.26	1.18	0.81
DOUGLAS	1941 - 1990	1.63	2.25	1.84	1.39	0.82	1.04	0.82
DUBOIS	1941 - 1990	1.03	1.32	1.47	0.97	0.77	1.12	0.65
ENCAMPMENT	1941 - 1990	1.63	1.73	1.41	1.30	1.42	1.19	1.30
EVANSTON	1941 - 1990	1.14	1.24	1.08	0.69	0.83	0.93	1.03
FARSON	1941 - 1983	0.67	1.16	1.09	0.61	0.68	0.73	0.72
FORT WASHAKIE	1941 - 1979	1.97	2.52	1.83	0.68	0.55	1.15	1.07
GILLETTE	1941 - 1990	1.77	2.70	3.04	1.45	1.20	1.35	1.02
GLENROCK	1942 - 1990	1.62	2.42	1.86	1.12	0.72	1.05	0.99
GREEN RIVER	1941 - 1990	0.85	1.15	0.93	0.58	0.74	0.71	0.81
JACKSON	1941 - 1990	1.07	1.77	1.68	0.92	1.23	1.27	1.15
KAYCEE	1941 - 1990	1.56	2.25	2.08	1.05	0.78	1.04	0.88
KEMMERER	1941 - 1990	0.86	1.18	1.17	0.68	0.90	0.88	0.79
LA GRANGE	1941 - 1990	1.84	2.94	2.55	1.96	1.31	1.18	0.91
LAKE YELLOWSTONE	1941 - 1990	1.35	1.64	1.88	1.46	1.70	1.77	1.25
LANDER	1941 - 1990	2.20	2.51	1.47	0.70	0.51	1.10	1.23
LARAMIE	1944 - 1990	0.97	1.38	1.18	1.58	1.17	0.88	0.74
LOVELL	1941 - 1990	0.57	1.17	1.25	0.59	0.62	0.76	0.49
LUSK	1941 - 1990	2.17	2.76	2.60	1.83	1.03	1.22	0.90
MOORCROFT	1949 - 1990	1.20	2.54	2.45	1.53	1.22	1.07	0.79
MEDICINE BOW	1948 - 1990	1.09	1.49	1.14	1.13	0.82	0.94	0.80
MIDWEST	1941 - 1990	1.71	2.38	1.92	1.27	0.74	1.05	0.97
MORAN	1941 - 1990	1.77	2.05	1.66	1.07	1.27	1.48	1.47
MORRISEY	1942 - 1978	1.64	2.33	2.25	1.57	1.01	0.85	0.72
MUDGY GAP	1949 - 1990	1.18	1.89	1.05	0.96	0.69	0.90	0.78
NEWCASTLE	1941 - 1990	1.49	2.37	2.58	1.81	1.52	1.07	0.82
PATHFINDER DAM	1941 - 1990	1.14	1.73	1.22	0.87	0.64	0.75	0.91
PINE BLUFFS	1941 - 1990	1.53	2.71	2.84	2.28	1.85	1.16	0.79
PINEDALE	1941 - 1990	0.93	1.56	1.27	0.97	1.03	1.06	0.83
POWELL	1941 - 1990	0.49	1.27	1.28	0.72	0.62	0.74	0.40
RAWLINS	1951 - 1990	0.96	1.17	0.84	0.78	0.77	0.81	0.85
REDBIRD	1942 - 1990	1.59	2.64	2.59	1.93	1.34	1.21	0.80
RIVERTON	1941 - 1990	1.09	1.77	1.33	0.64	0.42	0.82	0.74
ROCK SPRINGS	1949 - 1990	0.92	1.16	0.88	0.75	0.63	0.79	0.75
SAGE	1941 - 1990	0.93	1.16	1.08	0.68	0.82	1.03	0.85
SARATOGA	1941 - 1990	0.96	1.27	1.01	0.98	0.93	0.84	0.94
SEMINOE DAM	1941 - 1990	1.64	2.01	1.41	0.94	0.80	0.94	1.19
SHERIDAN	1941 - 1990	1.73	2.62	2.94	1.13	1.00	1.47	1.16
SOUTH PASS CITY	1941 - 1980	1.57	1.59	1.57	0.67	0.92	0.91	1.14
SUNDANCE	1941 - 1990	1.80	2.71	3.36	1.77	1.49	1.40	1.03
SUNSHINE	1941 - 1990	2.01	2.81	2.56	1.56	1.31	1.42	1.06
TEN SLEEP	1956 - 1990	1.49	2.04	1.96	0.70	0.77	1.15	1.15
THERMOPOLIS	1941 - 1990	1.42	2.15	1.97	0.97	0.84	1.17	0.93
TORRINGTON	1941 - 1990	1.73	2.56	2.60	1.76	1.04	1.08	0.86
TOWER FALLS	1941 - 1990	1.07	1.91	2.26	1.67	1.48	1.42	1.14
UPTON	1949 - 1990	1.42	2.45	2.55	1.73	1.47	1.08	0.86
WAMSUTTER	1913 - 1990	0.58	0.85	0.74	0.75	0.78	0.68	0.49
WESTON	1951 - 1990	1.22	2.41	2.52	1.47	1.10	1.14	0.83
WAHLEN DAM	1949 - 1990	1.46	2.43	2.17	1.67	1.05	1.12	0.69
WHEATLAND	1941 - 1990	1.48	2.41	2.13	1.48	1.03	1.13	0.72
WORLAND	1941 - 1990	0.87	1.38	1.34	0.49	0.55	0.79	0.64

Table A2. Seasonal CIR Estimates vs Report #5 Values

Table A2. Seasonal CIR Estimates vs Report #5 Values, continued

	Alfalfa Hay			Grass Hay			Spring Wheat			Winter Wheat				Corn			Dry Beans			Potatoes			Sugar Beets		
Location	New	#5	%	New	#5	%	New	#5	%	New	#5	%	Location	New	#5	%	New	#5	%	New	#5	%	New	#5	%
Afton	15.1	14.9	99	14.1	13.9	99	10.3	10.1	98	--	10.1	--	Afton	--	--	--	--	--	--	--	--	--	--	--	--
Alta	14.4	15.7	109	13.4	14.6	109	9.5	10.3	108	--	10.3	--	Alta	--	--	--	--	--	--	--	--	--	--	--	--
Arvada	27.7	24.1	87	25.9	22.3	86	12.7	13.2	104	13.8	13.2	96	Arvada	20.9	18.7	89	--	--	--	--	--	--	--	--	--
Basin	34.6	29.7	86	32.7	27.7	85	17.6	17.8	101	19.3	17.8	92	Basin	24.5	23.1	94	18.2	16.2	89	21.2	18.7	88	26.9	22.4	83
Bedford	14.3	15.2	106	13.3	14.0	105	9.8	10.1	103	10.5	10.1	96	Bedford	--	--	--	--	--	--	--	--	--	--	--	--
BigPiney	16.0	16.0	100	15.1	14.7	97	11.5	11.2	97	--	11.2	--	BigPiney	--	--	--	--	--	--	--	--	--	--	--	--
Border	18.3	18.5	101	17.2	17.5	102	12.6	12.2	97	13.4	12.2	91	Border	--	--	--	--	--	--	--	--	--	--	--	--
Buffalo	24.8	20.5	83	23.2	18.9	81	11.9	11.6	97	12.8	11.6	91	Buffalo	19.0	16.5	87	--	--	--	--	--	--	--	--	--
Casper	29.3	23.4	80	27.6	21.7	79	14.1	13.5	96	15.0	13.5	90	Casper	22.7	18.8	83	--	--	--	--	--	--	--	--	--
Cheyenne	24.3	18.7	77	22.7	17.1	75	11.5	10.7	93	12.7	10.7	84	Cheyenne	17.6	15.3	87	12.3	--	--	14.6	--	--	19.1	--	--
Chugwater	25.6	18.9	74	23.9	17.4	73	12.0	10.5	87	13.1	10.5	80	Chugwater	18.6	16.4	88	13.1	--	--	15.5	--	--	20.2	--	--
Cody	27.7	23.2	84	26.1	21.6	83	13.6	14.1	104	14.7	14.1	96	Cody	20.9	19.0	91	15.3	13.3	87	17.8	15.0	84	22.4	18.5	83
Colony	26.6	22.9	86	24.8	20.8	84	12.2	12.2	100	13.1	12.2	93	Colony	20.3	--	--	--	--	--	--	--	--	--	--	--
Douglas	27.8	20.9	75	26.1	19.4	74	13.6	12.2	90	14.5	12.2	84	Douglas	22.0	17.1	78	16.0	12.5	78	--	13.9	--	--	16.5	--
Dubois	16.4	17.4	106	15.4	16.1	104	11.4	11.3	99	12.0	11.3	94	Dubois	--	14.9	--	--	--	--	--	--	--	--	--	--
Encampmt	20.6	17.6	85	19.3	16.5	85	12.4	11.3	91	13.3	11.3	85	Encampmt	--	--	--	--	--	--	--	--	--	--	--	--
Evanston	22.5	18.3	81	21.1	17.0	81	14.2	12.6	89	--	12.6	--	Evanston	--	--	--	--	--	--	--	--	--	--	--	--
Farson	19.5	19.5	100	18.3	18.2	99	13.3	13.7	103	--	13.7	--	Farson	--	--	--	--	--	--	--	--	--	--	--	--
FtWashak	22.2	20.5	92	20.8	19.0	91	13.3	12.1	91	13.9	12.1	87	FtWashak	18.5	17.4	94	13.8	13.3	96	16.0	14.6	91	19.8	17.0	86
Gillette	24.3	21.6	89	22.7	20.0	88	11.4	12.0	105	12.3	12.0	98	Gillette	19.3	--	--	--	--	--	--	--	--	--	--	--
GreenRiv	28.9	24.6	85	27.3	23.0	84	17.0	15.2	89	--	15.2	--	GreenRiv	--	--	--	--	--	--	--	--	--	--	--	--
Jackson	15.3	16.7	109	14.3	15.4	108	10.8	11.3	105	--	11.3	--	Jackson	--	--	--	--	--	--	--	--	--	--	--	--
Kaycee	25.5	21.6	85	23.9	20.0	84	12.2	12.4	102	13.1	12.4	95	Kaycee	19.7	17.1	87	--	--	--	--	--	--	--	--	--
Kemmerer	19.1	18.7	98	18.0	17.4	97	12.7	13.0	102	13.4	13.0	97	Kemmerer	--	--	--	--	--	--	--	--	--	--	--	--
LaGrange	22.6	21.2	94	21.0	19.3	92	10.2	11.3	111	11.1	11.3	102	LaGrange	17.1	16.7	98	12.4	11.4	92	14.4	13.0	90	18.4	15.4	84
LakeYell	8.8	10.3	117	8.1	9.3	115	--	6.6	--	--	6.6	--	LakeYell	--	--	--	--	--	--	--	--	--	--	--	--
Lander	26.1	22.3	85	24.6	20.7	84	13.4	12.3	92	14.1	12.3	87	Lander	21.0	18.8	90	15.8	14.2	90	18.3	--	--	22.7	17.9	79
Laramie	21.6	18.2	84	20.3	17.1	84	12.2	11.3	93	--	11.3	--	Laramie	--	--	--	--	--	--	--	--	--	--	--	--
Lovell	31.8	27.9	88	30.0	25.8	86	16.1	16.3	101	17.6	16.3	93	Lovell	22.8	21.1	93	17.1	15.2	89	19.8	16.4	83	25.1	20.7	82
Lusk	25.2	20.1	87	23.6	18.5	78	11.8	10.8	92	12.3	10.8	88	Lusk	20.1	16.1	80	14.5	11.7	81	--	13.0	--	--	15.4	--
Midwest	30.7	24.6	80	28.8	22.5	78	14.4	12.9	90	15.4	12.9	84	Midwest	23.6	--	--	--	--	--	--	--	--	--	--	--
Moran	13.1	13.5	103	12.3	12.3	100	9.3	9.3	100	--	9.3	--	Moran	--	--	--	--	--	--	--	--	--	--	--	--
Newcastl	27.3	23.2	85	25.5	21.2	83	12.4	12.5	101	13.5	12.5	93	Newcastl	20.0	--	--	--	--	--	--	--	--	--	--	--
Pathfind	29.6	24.2	82	27.9	22.5	81	14.4	14.4	100	15.4	14.4	94	Pathfind	23.2	--	--	--	--	--	--	--	--	--	--	--
PineBluf	26.2	21.9	84	24.4	19.9	82	12.1	11.5	95	13.4	11.5	86	PineBluf	18.2	16.4	90	12.6	11.0	87	14.9	12.8	86	19.9	15.4	77
Pinedale	14.0	15.7	112	13.1	14.4	110	10.3	10.7	104	--	10.7	--	Pinedale	--	--	--	--	--	--	--	--	--	--	--	--
Powell	32.0	28.2	88	30.2	26.1	86	15.6	16.3	104	17.2	16.3	95	Powell	22.6	21.7	96	16.7	14.6	87	19.4	16.3	84	24.7	20.9	85
Rawlins	24.2	21.6	89	22.8	20.1	88	15.1	13.8	91	16.0	13.8	86	Rawlins	--	--	--	--	--	--	--	--	--	--	--	--
Riverton	28.2	24.4	87	26.6	22.7	85	16.5	14.3	87	17.5	14.3	82	Riverton	21.6	20.4	94	16.1	13.7	85	18.8	16.8	89	23.5	19.1	81
Sage	18.8	18.8	100	17.7	17.4	98	12.9	13.2	102	13.7	13.2	96	Sage	--	--	--	--	--	--	--	--	--	--	--	--
Saratoga	25.8	19.9	77	24.2	18.8	78	15.5	13.5	87	16.8	13.5	80	Saratoga	--	17.0	--	--	--	--	--	--	--	--	--	--
Sheridan	23.0	21.0	91	21.5	19.3	90	10.7	11.5	107	11.5	11.5	100	Sheridan	18.3	16.9	92	--	--	--	13.7	--	--	16.4	--	--
SouthPas	13.1	13.7	105	12.3	12.8	104	--	9.7	--	--	9.7	--	SouthPas	--	--	--	--	--	--	--	--	--	--	--	--
Sundance	19.7	17.9	91	18.3	16.4	90	10.1	10.2	101	10.8	10.2	94	Sundance	16.3	14.8	91	--	--	--	--	--	--	--	--	--
Sunshine	16.2	12.9	80	15.1	11.6	77	9.2	7.9	86	9.6	7.9	82	Sunshine	--	--	--	--	--	--	--	--	--	--	--	--
Thermopo	24.5	24.5	100	22.9	23.2	101	12.8	14.1	110	13.8	14.1	102	Thermopo	18.7	20.3	109	14.0	13.6	97	16.3	16.8	103	20.6	18.9	92
Torringt	25.8	23.1	90	24.1	21.1	88	11.7	12.0	103	12.8	12.0	94	Torringt	18.3	17.8	97	13.1	11.6	89	15.5	14.0	90	19.9	16.7	84
Wamsuttr	24.7	23.8	96	23.3	21.9	94	15.3	15.3	100	--	15.3	--	Wamsuttr	--	--	--	--	--	--	--	--	--	--	--	--
Wheatlan	25.9	24.2	93	24.3	22.2	91	11.9	13.6	114	13.1	13.6	104	Wheatlan	18.6	19.2	103	13.5	13.0	96	15.7	14.8	94	20.1	17.6	88
Worland	31.8	27.3	86	30.0	25.2	84	16.5	15.5	94	18.1	15.5	86	Worland	22.5	21.2	94	16.8	14.9	89	19.5	16.4	84	24.9	20.2	81

Percents are Report #5 CIR values as a percent of Table #9 values

Percents are Report #5 CIR values as a percent of Table #9 values

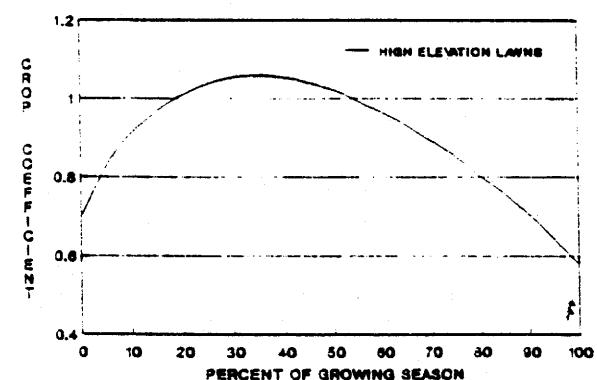
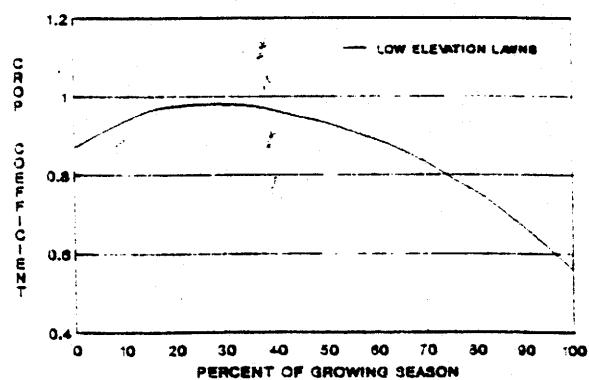
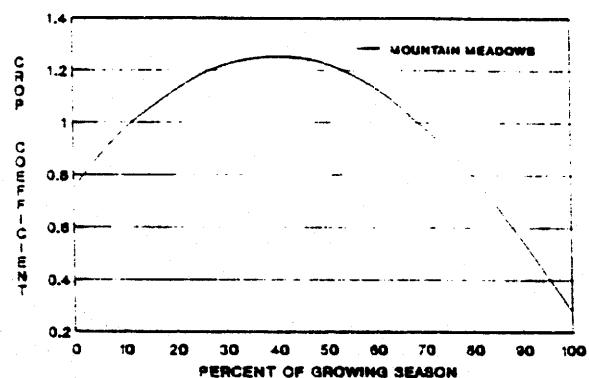
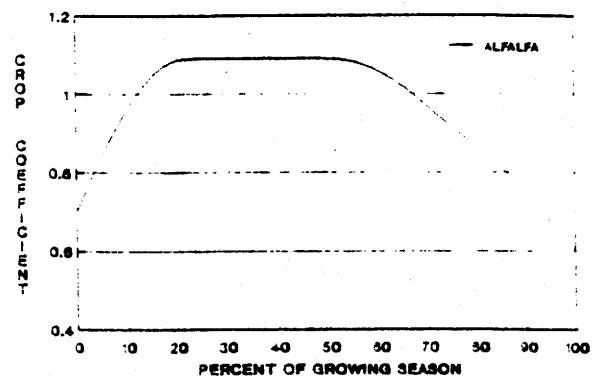


Figure A1. Crop Curves for Forages and Lawn Grass.

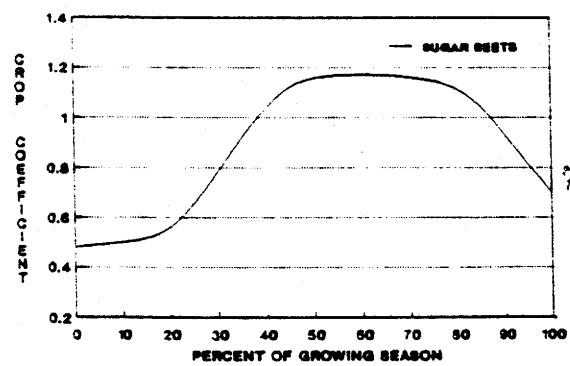
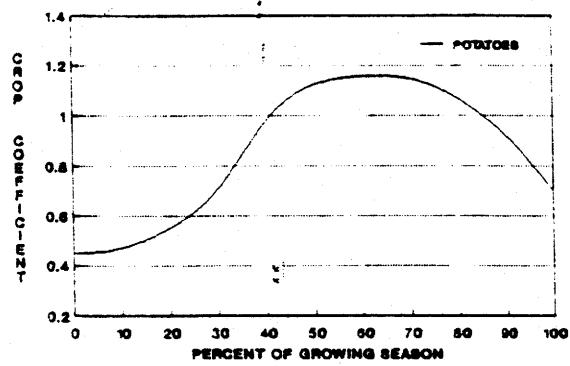
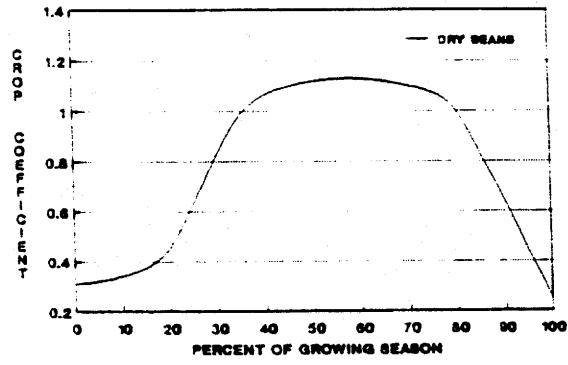
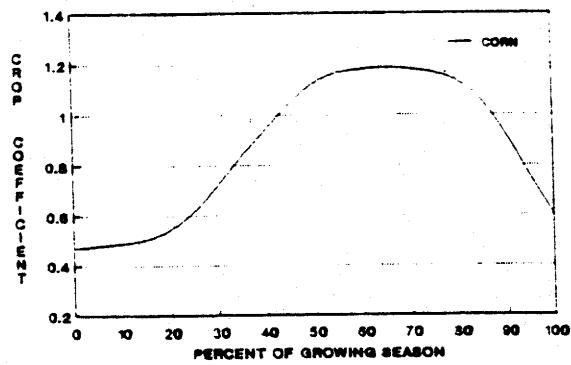
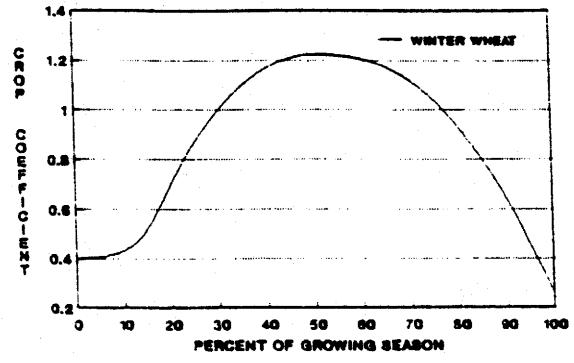
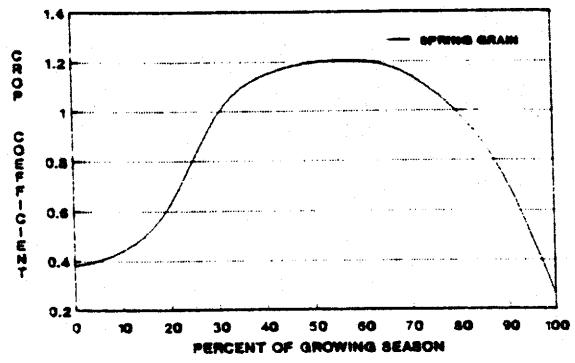


Figure A2. Crop Curves for Annual Crops.

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