Spring and Fall

Freezing Temperatures in Idaho

David J. Stevlingson

Dale O. Everson

Bulletin 494

Idaho Agricultural Experiment Station

UNIVERSITY OF IDAHO

College of Agriculture

TEACHING RESEARCH SERVICE

Acknowledgments

The authors acknowledge the work of the cooperative observers whose records form the principal basis of this study. These people observe and carefully record daily data and therefore accumulate for Idaho and the nation a priceless resource of climatic information. Special thanks go to Dr. W. C. Crowley and Mrs. Janice Lewis of the Computing Center and Mr. W. S. Roberts of Statistical Services Center, University of Idaho, for their fine work.

This research has been supported in part by Regional Project W-48, "Climate and Phenological Patterns for Agriculture in the Western Region."

The Authors

David J. Stevlingson is state climatologist, Environmental Science Services Administration, Boise, Idaho. Dale O. Everson is statistician, University of Idaho Agricultural Experiment Station.

Contents

Cover photo courtesy of Bob Lorimer

Agricultural Experiment Station

College of Agriculture
Moscow, Idaho

University of Idaho
TN 3M 4-68

Spring and Fall *Freezing Temperatures* in Idaho

David J. Stevlingson and Dale O. Everson

Freezing temperatures in late spring and early fall can have a significant effect on Idaho agriculture. Farmers, orchardists and even home gardeners are concerned with possible damage to or destruction of their crops by freezing.

Because Idaho has such a large range of elevation, latitude and topography, dates of the last freeze in spring and first freeze in fall vary widely from place to place. Knowledge of these variations is important in planning the culture of the many species and varieties of crops that make up the total agriculture of the state.

Sources of Data

Temperature data used in this study are from thermometers exposed in louvered shelters, generally at a height of about 5 feet above ground. Wherever possible the shelter is placed over sod in an open, well-ventilated spot. Assuming free circulation of the air through the shelter, the resulting minimum temperatures may be considered free-air temperatures unaffected by direct loss of heat from the thermometer to the open sky. Ideal locations are not always attainable, however, and the remarks in Table 1 describe deviations from the ideal.

Air temperature at the 5-foot level is considered a practical index to conditions at the level of the vegetation. Research in Vermont and California indicates there are substantial differences, however. Temperatures were recorded at the 5-foot and 3-inch levels in agronomy field plots at the University of Vermont (3). Over a 9-year period, daily minimums at the 3-inch level averaged 4 degrees F below those at the 5-foot level for both spring and fall. This delayed the average last occurrence of a specific temperature in the spring by 17 days and advanced the first fall occurrence by 13 days. In effect, the 32-degree freeze-free period was about 30 days shorter at the 3-inch level than at the 5-foot level. During the winter in the Imperial Valley of California, shelter temperatures and temperatures at the level of growing lettuce differed by an average of 6 degrees (1).

Killing Frost or Freeze

The term killing frost is no longer used by the Weather Bureau because of variations among observers in determining a killing frost, the lack of standard objective criteria and the wide variations of resistance to injury, even within the same species and varieties of plants.

Freeze is the term now in general use. Freeze is defined as an occurrence of a temperature of 32 degrees F or lower in a thermometer shelter at about the 5-foot level. It may or may not be accompanied by frost. Three classes of freeze have been adopted (2):

Light freeze: the free-air temperature in a standard instrument shelter ranges between 28 and 32 degrees F. There is little or no damage to most plants, but there may be heavy damage to tender plants and to semi-hardy plants in lowlands.

Moderate freeze: The free-air temperature ranges between 24 and 28 degrees F. There is some damage to most plants. There is heavy damage to fruit blossoms and tender and semi-hardy plants, particularly in lowlands.

Severe freeze: the free-air temperature is less than 24 degrees F. There is heavy damage to all plants.

Types of Freezes

Radiation freezes occur when the general air mass over the area is cool, winds are light and the sky is clear or nearly so. Under such conditions the soil surface cools rapidly as heat is radiated out to space. Air in contact with the soil surface gives up its heat to the cooler surface. As this cooling process continues, temperature of the layer of air next to the soil surface decreases. The depth of this layer and the extent of temperature decrease depend upon the amount of air movement (wind) in this low-lying air. A slight breeze serves to distribute the cooler

air through a layer of some depth. A strong breeze mixes the cooling air with warmer air from above and may prevent a decrease of temperature to the freezing point. If the heat loss through outgoing radiation continues throughout the night, the minimum temperature is usually reached near sunrise. A layer of clouds interrupts the outward flow of heat and often prevents a drop of temperature to the freezing point.

Advection freezes occur when a mass of air with below freezing temperature moves over an area. When this occurs there is a steady decrease in temperature with increasing height—the reverse of radiation freeze conditions. This type of freeze is usually accompanied by stronger winds and is not associated with the low-level temperature inversion found in radiation freezes.

A combination **radiation-advection freeze** occurs occasionally when a cold air mass moves in with strong winds during the day, but with subsiding winds during the night. Then if skies are clear the radiational cooling further decreases the temperature and a severe freeze results.

Local Influences On Temperature

Uneven heating of the soil surface during the day, even in bright sunlight, occurs because of variations in soil cover, type of soil and direction of slope. Soil and air temperatures on a farm, or even in a single field, may vary considerably. The minimum temperature will be determined in part by the temperature reached during the day. Bare soils, especially if packed, absorb more heat than loose, cropped soils. Soils with a dense crop cover absorb little heat since the plant prevents exposure to direct solar radiation. Although plant cover provides a greater radiating surface which cools rapidly after sunset, it still acts as a cover to the soil. Therefore, bare soils are generally cooler at night than soils with crop cover.

Soil structure and moisture also affect temperature. Dark heavy soils absorb more heat than light sandy soils. Wet soils are more efficient in absorbing and holding heat than dry soils.

On clear, calm nights, hillsides are often several degrees warmer than the adjacent valleys or depressions. This is caused by the flow of cooler, heavier air from the hillsides into the low-lying areas. As the cool air moves downward it is replaced by warmer air from the valley or depression, while the cool air builds a deeper and deeper pool in the lower areas. Slopes facing toward the north or east will begin cooling earlier than slopes toward the south and west because of the angle of exposure to solar radiation.

Elevation is another factor influencing temperatures. Temperature decreases an average of about 3.5 degrees F per 1,000 feet increase in elevation. Elevation of agricultural lands in Idaho varies from less than 1,000 to more than 6,000 feet, so this contributes to the wide range in average temperature between agricultural areas.

Valleys at higher elevations experience a wide diurnal range of temperature since there is less air mass and therefore higher incidence of solar radiation at these elevations. Relatively high daytime temperatures in spring may induce early plant growth at a time when freezing temperatures are still a hazard at night. In some of Idaho's higher valleys, of course, there is a possibility of freezing temperatures any month of the year.

Land areas on the lee side of large bodies of water generally have longer growing seasons than areas on the windward side or at considerable distance from the lake or reservoir. Water, because of its greater capacity to hold heat, will often maintain a temperature well above freezing while soils are cooling to below freezing during a night in spring or fall. Air moving off the warmer water can prevent freezing conditions for some distance from the shore, depending upon the strength of the wind.

Two areas in Idaho illustrate the effects of bodies of water on the growing season. The station at Deer Flat Dam, located just below the dam that impounds water in Lake Lowell, has an average growing season (at the 32-degree level) of 166 days, while Nampa 2NW and Caldwell, located 5 to 7 miles from the lake, have growing seasons of 152 and 146 days respectively. Aberdeen Experiment Station, on the west side of American Falls Reservoir, has a growing season of only 109 days, but Pocatello Airport, several miles east of the reservoir in an area of predominantly westerly winds, has an average season of 146 days.

Low-Temperature Injury to Plants

There are two types of low-temperature injury to plants, depending upon the vegetative activity of the plant at time of exposure (6):

Freeze injury is a direct injury resulting from exposure to low temperatures after the plants have started growth in spring or before they have entered the period of dormancy in fall.

Winter injury is often an indirect injury resulting from extremely low temperatures during the plant's dormant period. One example of winter injury is the plant dessication which occurs in such crops as winter wheat when there is no protective snow cover during cold weather. Winter injury to fruit trees occurs occasionally when the trees are subjected to extreme cold without the gradual chilling or preconditioning that induces dormancy.

This bulletin deals primarily with spring and fall **freeze injury** to growing crops. No data on winter temperature extremes are included.

Protection Against Injury

Site selection is the most important single factor in preventing freezing injury. Since cold air flows downhill and collects in pockets or any low area, planting sites for crops vulnerable to spring and fall freezes should provide natural air drainage into lower areas. The flow of air should not be blocked by fencerows, windbreaks, earth fills or heavy vegetation which might cause a damming up of the cold air.

Varieties can be selected which are known to be hardy in the area in which they will be planted and which will have a reasonable chance for growing to maturity within the expected frost-free season.

Fig. 1. Location of climatological stations.

Certain cultural practices provide protection against freeze injury and should be adopted where spring freezes and winter injury are serious problems. Growers can manage fertilizer programs so they do not stimulate excessive vegetative growth and keep plants growing late in the fall. Mulches are commonly used for many tree fruits, small fruits, ornamentals and flowers. They give excellent frost protection while plants are covered. The following factors have been found to affect soil surface temperature at night:

Factors Which Favor Higher Soil Surface Temperatures

1. Open exposure to solar radiation during the day.
2. Cloud cover during the night.
3. Wind at night.
4. Firm compact soil.
5. Moist soil.

Factors Which Favor Lower Soil Surface Temperatures

1. Open exposure to sky at night.
2. Light wind or calm.
3. Loose cultivated soil.
4. Dry soil.

Mechanical practices also can prevent freeze injury to plants. Newspapers, hot-caps and other materials which trap heat during the day and retain it at night are used effectively to cover vegetables, flowers and other plants. Heaters, wind machines and irrigation water can be used to protect tree fruits from spring frosts (4). Irrigation is also used at times to protect row crops against freezing. If irrigation is done near harvest time, however, a muddy field may prevent harvest operations for several days and added water in the plants may also make them more vulnerable to freeze within the next few days.

Limitations

The observations on freeze dates presented in this bulletin are intended to aid in long-range planning. For example, the dates can be guidelines for selecting planting time relative to time required for a crop plant to reach maturity, for selecting varieties of vegetables and fruits for the home garden or orchard and for selecting proper plant species for landscaping. Furthermore, the temperature data are representative only of the general area in the vicinity of the temperature recording station. The size of this area depends upon the topography. The locations of the stations are shown in Fig. 1. General descriptions are included in Table 1.

Day-by-day decisions to use orchard heaters, cover tomatoes or use protective measures should be based on current forecasts.

Using Freeze Risk Tables

Spring and fall "freeze risk" calculations are presented in Table 2 for the temperature thresholds of 16, 20, 24, 28 and 32 degrees F. The 50 percent probability columns are **average** dates for each temperature threshold. Thus, at the Boise airport (A.P.), the average date of last 32-degree reading in the spring is May 6. The first 32-degree reading in the fall is October 12, on the average.

The chance of any of these critical temperatures affecting a particular operation may be found in Table 2. For example, if a gardener near the Boise airport sets his tomato plants out on May 16, he is taking a 25 percent chance on a temperature of 32 degrees or lower. On the average, 1 year in 4 will have such a temperature after May 16. If the gardener is more conservative and wants only a 1 in 10 chance (10 percent probability) of the 32-degree temperature, he will not expose his tomato plants until May 25. And the gardener who would risk a 90 percent chance of freeze would plant on April 17 but should keep a large supply of blankets, optimism and replants handy.

The table does not consider the chance of low temperatures on two or more successive days.

Length of Growing Season

The lengths of growing season for each of the temperature thresholds are presented in Table 3. These figures are the number of days between the 50 percent probabilities—or average occurrence—of these temperatures in the spring and fall. However, July 10 was arbitrarily set as the last day for the growing season to begin at any station. It must be emphasized again that these figures are for the weather station and its immediate vicinity only. Local environmental conditions determine how well these growing seasons represent the general area of the station.

Temperature Thresholds

Table 4 shows the extreme occurrences of temperature thresholds for 28 and 32 degrees in spring and fall for the period of record at each station. The number of years of record is also listed and should be considered when studying this table. The probability that the computed extremes represent the actual extremes at any particular station depends, of course, on the number of years of record.

Analysis of Data

Thom and Shaw (7) have shown that freeze dates follow a normal frequency distribution. The average dates for the different thresholds were computed; these are the dates of 50 percent probability. The number of years of record varied widely because of lack of continuous records for some stations. An erratic estimate of the standard deviation might result if the station's standard deviation were based on only a few years' data. For this reason, pooled variances utilizing data from all stations yielded a standard deviation of 15.8 days for the spring and 14.9 days for the fall thresholds of 20, 24, 28, and 32 degrees. The pooled standard deviations for the 16-degree thresholds were somewhat higher, 19.2 and 16.3 days respectively.

In another study Phillips et al. (5) computed statewide standard deviations for all Washington stations of 19.3 days for spring and 17.5 days for fall for thresholds of 16, 20, 24, 28, and 32 degrees.

No practical relationship was found to enable prediction of the first fall frost once the last spring frost is shown for any single year. Negative correlations between the spring and fall thresholds in the neighborhood of –0.10 were found for all thresholds studied.

Standard deviations for growing season were computed as 26.7, 24.3, 22.3, 22.5, and 22.3 days for 16, 20, 24, 28, and 32 degrees respectively and may be used when interpreting Table 3.

References

1. Allen, W. B. 1961. Report at Fruit-Frost Conference. Pomona, Calif.
2. Eichmeier, A. H. 1965. Michigan freeze bulletin. Michigan Agr. Exp. Sta. Res. Rep. 26.
3. Hopp, R. J., K. E. Varney anud R. E. Lautzenheiser. 1964. Late spring and early fall low temperatures in Vermont. Vermont Agr. Exp. Sta. Bull. 639.
4. Horn, Anton S. 1966. Frost prevention in Idaho orchards. Idaho Agr. Ext. Serv. Bull. 458.
5. Phillips, E. L., M. D. Magnuson, A. H. Jones, A. Van Doren, L. Proebsting and P. C. Crandall. 1962. Washington state freeze circular. Washington Agr. Exp. Sta. Circ. 400.
6. Schaal, L. A. Risks of freezing temperatures—spring and fall in Indiana. Purdue Univ. Agr. Exp. Sta. Res. Bull. 271.
7. Thom, H. D. S. and R. H. Shaw. 1958. Climatological analysis of freeze data for Iowa. Monthly Weather Rev. 86:251-257.

Table 1. Index and description of stations.

Station	County	Elevation (ft.)	Remarks
North			
Avery R. S.	Shoshone	2492	At junction of two narrow canyons. Surrounding mountains heavily timbered.
Bonners Ferry	Boundary	1810	Shelter on lawn at southwest edge of city.
Coeur d'Alene R. S.	Kootenai	2158	Good exposure, over sod, at Fernan Ranger Station.
Cottonwood	Idaho	3411	Shelter over sod. Gentle slope downward toward the east. Good exposure.
Fenn R. S.	Idaho	1580	Over sod, about 300 feet from Selway River. Timbered slopes rise sharply to north of station.
Grangeville	Idaho	3355	Over sod, in level area within city. Ground slopes sharply about 100 feet north of station.
Kellogg	Shoshone	2305	Shelter over gravel in storage yard. Narrow canyon with barren mountains to north and south.
Kooskia	Idaho	1261	On edge of lawn, near center of town.
Lewiston A. P.	Nez Perce	1413	Over gravel near Terminal Building. Good exposure.
Moscow, U. of I.	Latah	2628	Over sod at base of slope, on University campus.
Nezperce	Lewis	3220	Shelter on lawn. Good exposure.
Pierce R. S.	Clearwater	3185	Over sod. Timbered hill to south. Fair exposure.
Porthill	Boundary	1800	Over sod on grounds of U. S. Customs Office.
Potlatch	Latah	2520	Over lawn in a depression during most of period. Fair exposure.
Priest River. Exp. Sta.	Bonner	2380	Good exposure over sod in large clearing. Heavy timber all directions.
Riggins R. S.	Idaho	1801	Narrow canyon near confluence of Salmon and Little Salmon Rivers.
St. Maries	Benewah	2085	Shelter over bare ground within city. Forested mountains all directions except northwest toward Lake Chatcolet.
Sandpoint Exp. Sta.	Bonner	2100	Over sod in level area, about one mile north of city.
Wallace	Shoshone	2950	Over sod in narrow canyon. Fair exposure.
Southwest			
Arrowrock Dam	Elmore	3239	Over bare ground downstream from reservoir, but about 20 feet higher than spillway of dam.
Boise A. P.	Ada	2842	Over gravel in open, level area. Good exposure.
Caldwell	Canyon	2370	On lawn within city; fair exposure.
Cambridge	Washington	2650	On lawn within village. Surrounding country level. Good exposure.
Cascade 1NW	Valley	4865	Over gravel, on knoll near reservoir, and about 40 feet above spillway.
Council	Adams	2935	Level area in broad valley. Good exposure.
Deer Flat Dam	Canyon	2510	On lawn about 200 feet from dam and 25 feet below top of dam. Good exposure.
Emmett 2E	Gem	2500	Over bare ground in orchard area. Good exposure.
Grandview	Owyhee	2600	Shelter over gravel within village. Near Snake River.
Idaho City	Boise	3965	Over sod at edge of lawn within village.
Kuna 2NNE	Ada	2685	Level farm area. Good exposure.
Lowman	Boise	3794	Over bare ground on south side of river.
McCall	Valley	5025	Over bare ground. Surrounded by sparse timber. Marginal exposure.
Mountain Home	Elmore	3180	Over bare ground. Area level. Good exposure.
Nampa 2NW	Canyon	2470	On lawn of sugar factory. Level area. Excellent exposure.
New Meadows R. S.	Adams	3870	Over gravel in midst of parking area. Exposure fair.
Ola 4S	Gem	2962	Over sod in narrow shallow valley. Exposure good.

Table 1. Index and description of stations. (cont.)

Station	County	Elevation (ft.)	Remarks
Southwest			
Parma Exp. Sta.	Canyon	2224	Over sod. Good exposure.
Payette	Payette	2110	Over bare ground.
Weiser 2SE	Washington	2120	Over sod. No obstructions. Good exposure.
South Central			
Bliss	Gooding	3265	Over sod. Good exposure.
Buhl	Twin Falls	3500	Over lawn, in town. Tall trees in area.
Burley	Cassia	4180	At rear of office building, over gravel, close to pavement. Exposure poor.
Fairfield R. S.	Camas	5065	Over bare ground. Exposure good.
Hailey	Blaine	5328	Over sod in level area. Exposure good.
Hazelton	Jerome	4060	Over sod, near irrigated field. Exposure good.
Hill City	Camas	5000	Over bare ground, at west end of valley. Exposure good.
Hollister	Twin Falls	4550	Over bare ground. Good exposure.
Jerome	Jerome	3785	Over sod. Good exposure.
Minidoka Dam	Minidoka	4210	Over gravel. 30 feet from shore, on tongue of land. Water on 3 sides.
Oakley	Cassia	4600	Over sod at edge of lawn. Exposure very good.
Richfield	Lincoln	4306	Over lawn, on level ground.
Rupert	Minidoka	4204	Over lawn bordered with shade trees. Exposure good.
Shoshone	Lincoln	3960	Over gravel in storage yard.
Twin Falls 2NNE	Twin Falls	3770	Over bare ground. Exposure good.
East			
Aberdeen Exp. Sta.	Bingham	4400	Over sod.
Ashton 1S	Fremont	5100	On lawn of farm house. Good exposure.
Blackfoot	Bingham	4503	At rear of fire station, over sod. Good exposure.
Challis	Custer	5175	Over bare ground. Good exposure.
Driggs	Teton	6097	Over sod. Exposure good.
Dubois Exp. Sta.	Clark	5452	Over sage brush and grass on level prairie. Exposure good.
Fort Hall	Bingham	4460	Over sod. Exposure good.
Idaho Falls A. P.	Bonneville	4744	Roof exposure during most of the period.
Irwin 2SE	Bonneville	5300	Over sod, 100 feet from Snake River. Exposure good.
Island Park Dam	Fremont	6300	Over sod in large clearing of lodge pole pine. Exposure good.
Mackay R. S.	Custer	5897	Over gravel. Exposure good.
Malad	Oneida	4420	Over lawn on small knoll. Numerous low trees and small bushes all directions. Exposure fair.
Malad A. P.	Oneida	4476	Over sod. Good exposure.
May R. S.	Lemhi	5110	Over bare ground. Exposure good.
McCammon	Bannock	4774	Over bare ground. Exposure good.
Montpelier R. S.	Bear Lake	5960	Over gravel, at edge of lawn. Shade trees to west. Exposure good.
Pocatello A. P.	Power	4454	Over gravel on small mound. Exposure good.
Preston 2SE	Franklin	4718	Over bare ground at Sugar Factory. Exposure good.
Salmon	Lemhi	3949	Over lawn in town.
Spencer R. S.	Clark	5883	Over lawn at rear of house. Exposure fair.
Sugar	Madison	4886	Over sod in level area. Good exposure.
Tetonia Exp. Sta.	Teton	5894	Over lawn. Open country all directions. Exposure good.

Table 2. Probability of spring and fall freezing thresholds.

Station	Temp.	Percent probability of indicated temperature or lower occurring on or after date in spring. 90%	75%	50%	25%	10%	Percent probability of indicated temperature or lower occurring on or before date in fall. 10%	25%	50%	75%	90%
NORTH											
Avery R. S.	16°	Feb 11	Feb 22	Mar 7	Mar 20	Apr 1	Nov 12	Nov 22	Dec 3	Dec 14	Dec 24
(32 years)	20°	Feb 28	Mar 10	Mar 22	Apr 2	Apr 12	Oct 27	Nov 5	Nov 16	Nov 26	Dec 6
	24°	Mar 18	Mar 27	Apr 7	Apr 17	Apr 26	Oct 9	Oct 18	Oct 28	Nov 7	Nov 16
	28°	Apr 16	Apr 26	May 7	May 18	May 28	Sep 25	Oct 4	Oct 14	Oct 24	Nov 1
	32°	May 16	May 25	Jun 4	Jun 14	Jun 23	Aug 29	Sep 7	Sep 17	Sep 27	Oct 6
Bonners Ferry	16°	Feb 8	Feb 20	Mar 5	Mar 18	Mar 29	Nov 7	Nov 16	Nov 28	Dec 9	Dec 18
(30 years)	20°	Feb 22	Mar 4	Mar 15	Mar 27	Apr 6	Oct 27	Nov 6	Nov 16	Nov 27	Dec 6
	24°	Mar 11	Mar 20	Mar 31	Apr 10	Apr 19	Oct 9	Oct 18	Oct 28	Nov 7	Nov 16
	28°	Apr 4	Apr 14	Apr 25	May 5	May 15	Sep 27	Oct 6	Oct 15	Oct 25	Nov 3
	32°	Apr 23	May 2	May 12	May 22	May 31	Sep 3	Sep 12	Sep 22	Oct 2	Oct 11
Coeur d'Alene	16°	Feb 5	Feb 17	Mar 2	Mar 15	Mar 26	Nov 15	Nov 24	Dec 6	Dec 17	Dec 26
(48 years)	20°	Feb 22	Mar 5	Mar 16	Mar 27	Apr 7	Oct 29	Nov 7	Nov 18	Nov 28	Dec 7
	24°	Mar 16	Mar 25	Apr 5	Apr 15	Apr 25	Oct 15	Oct 24	Nov 3	Nov 13	Nov 22
	28°	Apr 5	Apr 15	Apr 26	May 7	May 17	Sep 29	Oct 8	Oct 18	Oct 27	Nov 5
	32°	Apr 26	May 5	May 15	May 25	Jun 3	Sep 6	Sep 15	Sep 25	Oct 5	Oct 14
Cottonwood	16°	Feb 13	Feb 25	Mar 10	Mar 23	Apr 3	Oct 29	Nov 8	Nov 19	Nov 30	Dec 10
(32 years)	20°	Mar 5	Mar 15	Mar 27	Apr 7	Apr 17	Oct 17	Oct 26	Nov 6	Nov 16	Nov 25
	24°	Mar 26	Apr 5	Apr 15	Apr 26	May 5	Oct 1	Oct 9	Oct 19	Oct 29	Nov 7
	28°	Apr 16	Apr 26	May 7	May 18	May 27	Sep 13	Sep 22	Oct 2	Oct 12	Oct 20
	32°	May 12	May 21	May 31	Jun 10	Jun 19	Aug 28	Sep 6	Sep 16	Sep 26	Oct 5
Fenn R. S.	16°	Jan 30	Feb 10	Feb 23	Mar 8	Mar 20	Nov 23	Dec 3	Dec 14	Dec 25	Jan 3
(23 years)	20°	Feb 10	Feb 20	Mar 4	Mar 15	Mar 25	Oct 26	Nov 4	Nov 15	Nov 25	Dec 5
	24°	Feb 28	Mar 9	Mar 19	Mar 30	Apr 8	Oct 22	Oct 31	Nov 10	Nov 20	Nov 29
	28°	Mar 22	Apr 1	Apr 12	Apr 23	May 2	Oct 9	Oct 18	Oct 28	Nov 6	Nov 15
	32°	Mar 15	May 24	May 4	May 14	May 23	Sep 20	Sep 29	Oct 9	Oct 19	Oct 28
Grangeville	16°	Feb 11	Feb 23	Mar 8	Mar 21	Apr 1	Nov 1	Nov 11	Nov 22	Dec 3	Dec 13
(34 years)	20°	Feb 28	Mar 10	Mar 22	Apr 2	Apr 12	Oct 23	Nov 2	Nov 12	Nov 23	Dec 2
	24°	Mar 17	Mar 26	Apr 6	Apr 16	Apr 26	Oct 11	Oct 20	Oct 30	Nov 9	Nov 18
	28°	Apr 4	Apr 14	Apr 25	May 6	May 15	Sep 22	Oct 1	Oct 11	Oct 20	Oct 29
	32°	Apr 27	May 6	May 16	May 25	Jun 3	Sep 5	Sep 14	Sep 24	Oct 4	Oct 13
Kellogg	16°	Feb 4	Feb 15	Feb 28	Mar 13	Mar 25	Nov 11	Nov 21	Dec 2	Dec 13	Dec 23
(43 years)	20°	Feb 18	Feb 28	Mar 12	Mar 23	Apr 2	Nov 1	Nov 10	Nov 21	Dec 1	Dec 10
	24°	Mar 7	Mar 17	Mar 27	Apr 6	Apr 16	Oct 14	Oct 22	Nov 1	Nov 11	Nov 20
	28°	Mar 28	Apr 6	Apr 17	Apr 28	May 8	Sep 29	Oct 8	Oct 18	Oct 28	Nov 5
	32°	Apr 23	May 2	May 12	May 21	May 30	Sep 8	Sep 17	Sep 27	Oct 7	Oct 16
Kooskia	16°	Jan 24	Feb 5	Feb 18	Mar 3	Mar 14	Nov 16	Nov 26	Dec 7	Dec 18	Dec 28
(40 years)	20°	Feb 12	Feb 22	Mar 6	Mar 17	Mar 28	Oct 28	Nov 6	Nov 17	Nov 27	Dec 7
	24°	Mar 5	Mar 14	Mar 25	Apr 4	Apr 14	Oct 17	Oct 26	Nov 5	Nov 15	Nov 24
	28°	Mar 22	Apr 1	Apr 12	Apr 23	May 3	Oct 2	Oct 10	Oct 20	Oct 30	Nov 8
	32°	Apr 18	Apr 27	May 7	May 17	May 26	Sep 9	Sep 18	Sep 28	Oct 8	Oct 17
Lewiston A. P.	16°	Jan 11	Jan 23	Feb 5	Feb 18	Mar 1	Nov 20	Nov 30	Dec 11	Dec 22	Dec 31
(17 years)	20°	Feb 1	Feb 11	Feb 23	Mar 6	Mar 16	Nov 15	Nov 24	Dec 5	Dec 15	Dec 25
	24°	Feb 20	Mar 1	Mar 11	Mar 22	Mar 31	Oct 29	Nov 6	Nov 16	Nov 26	Dec 5
	28°	Mar 13	Mar 23	Apr 3	Apr 14	Apr 23	Oct 14	Oct 22	Nov 1	Nov 11	Nov 20
	32°	Apr 3	Apr 12	Apr 22	May 2	May 11	Sep 30	Oct 9	Oct 19	Oct 28	Nov 6
Moscow, U of I	16°	Jan 25	Feb 6	Feb 19	Mar 4	Mar 15	Nov 11	Nov 20	Dec 1	Dec 12	Dec 22
(67 years)	20°	Feb 10	Feb 20	Mar 4	Mar 15	Mar 25	Oct 27	Nov 6	Nov 16	Nov 27	Dec 6
	24°	Feb 24	Mar 6	Mar 16	Mar 27	Apr 5	Oct 17	Oct 26	Nov 5	Nov 15	Nov 24
	28°	Mar 25	Apr 4	Apr 15	Apr 26	May 5	Sep 25	Oct 3	Oct 13	Oct 23	Nov 1
	32°	Apr 22	May 1	May 11	May 20	May 29	Sep 5	Sep 14	Sep 24	Oct 4	Oct 13

Table 2. Probability of spring and fall freezing thresholds (Cont.)

Station	Temp.	Percent probability of indicated temperature or lower occurring on or after date in spring.					Percent probability of indicated temperature or lower occurring on or before date in fall.				
		90%	75%	50%	25%	10%	10%	25%	50%	75%	90%
NORTH											
Nezperce	16°	Feb 10	Feb 22	Mar 7	Mar 20	Apr 1	Nov 4	Nov 14	Nov 25	Dec 6	Dec 16
(34 years)	20°	Feb 24	Mar 7	Mar 18	Mar 29	Apr 9	Oct 22	Oct 31	Nov 11	Nov 22	Dec 1
	24°	Mar 16	Mar 26	Apr 5	Apr 15	Apr 25	Oct 13	Oct 22	Nov 1	Nov 11	Nov 20
	28°	Apr 6	Apr 16	Apr 27	May 8	May 18	Sep 17	Sep 26	Oct 6	Oct 16	Oct 25
	32°	May 9	May 18	May 28	Jun 7	Jun 16	Aug 31	Sep 9	Sep 19	Sep 29	Oct 8
Pierce R. S.	16°	Mar 2	Mar 13	Mar 26	Apr 8	Apr 20	Oct 28	Nov 7	Nov 18	Nov 29	Dec 9
(21 years)	20°	Mar 17	Mar 27	Apr 8	Apr 19	Apr 29	Oct 9	Oct 18	Oct 29	Nov 8	Nov 18
	24°	Apr 4	Apr 13	Apr 24	May 4	May 13	Sep 24	Oct 3	Oct 13	Oct 23	Nov 1
	28°	Apr 25	May 5	May 16	May 27	Jun 6	Aug 31	Sep 9	Sep 19	Sep 29	Oct 8
	32°	May 24	Jun 2	Jun 12	Jun 22	Jul 1	Aug 2	Aug 11	Aug 21	Aug 31	Sep 9
Porthill	16°	Feb 15	Feb 27	Mar 12	Mar 25	Apr 5	Oct 31	Nov 10	Nov 21	Dec 2	Dec 12
(61 years)	20°	Feb 28	Mar 10	Mar 21	Apr 1	Apr 12	Oct 20	Oct 29	Nov 9	Nov 19	Nov 29
	24°	Mar 20	Mar 29	Apr 9	Apr 19	Apr 28	Oct 4	Oct 13	Oct 23	Nov 2	Nov 11
	28°	Apr 9	Apr 19	Apr 30	May 11	May 20	Sep 10	Sep 19	Sep 28	Oct 8	Oct 17
	32°	Apr 28	May 7	May 17	May 27	Jun 5	Aug 31	Sep 9	Sep 19	Sep 29	Oct 8
Potlatch	16°	Feb 4	Feb 15	Feb 28	Mar 13	Mar 25	Nov 3	Nov 13	Nov 24	Dec 5	Dec 15
(39 years)	20°	Feb 19	Mar 2	Mar 13	Mar 24	Apr 4	Oct 21	Oct 30	Nov 10	Nov 20	Nov 29
	24°	Mar 14	Mar 23	Apr 2	Apr 13	Apr 22	Oct 9	Oct 18	Oct 28	Nov 6	Nov 15
	28°	Apr 9	Apr 19	Apr 29	May 10	May 20	Sep 17	Sep 26	Oct 6	Oct 16	Oct 24
	32°	May 9	May 18	May 28	Jun 7	Jun 16	Aug 26	Sep 4	Sep 14	Sep 23	Oct 2
Priest River Exp. Sta.	16°	Feb 24	Mar 7	Mar 20	Apr 2	Apr 14	Oct 25	Nov 3	Nov 14	Nov 25	Dec 5
(51 years)	20°	Mar 11	Mar 21	Apr 2	Apr 13	Apr 23	Oct 14	Oct 23	Nov 3	Nov 13	Nov 23
	24°	Mar 29	Apr 7	Apr 17	Apr 28	May 7	Sep 27	Oct 6	Oct 16	Oct 26	Nov 4
	28°	Apr 22	May 2	May 13	May 24	Jun 2	Sep 4	Sep 13	Sep 23	Oct 3	Oct 11
	32°	May 19	May 28	Jun 7	Jun 17	Jun 26	Aug 16	Aug 25	Sep 4	Sep 14	Sep 23
Riggins R. S.	16°	Jan 19	Jan 31	Feb 13	Feb 26	Mar 9	Nov 17	Nov 27	Dec 8	Dec 19	Dec 29
(21 years)	20°	Feb 6	Feb 17	Feb 28	Mar 11	Mar 22	Nov 13	Nov 22	Dec 3	Dec 13	Dec 23
	24°	Feb 22	Mar 3	Mar 14	Mar 24	Apr 3	Oct 22	Oct 31	Nov 10	Nov 20	Nov 29
	28°	Mar 20	Mar 30	Apr 10	Apr 21	May 1	Oct 18	Oct 27	Nov 6	Nov 15	Nov 24
	32°	Apr 8	Apr 17	Apr 27	May 7	May 16	Oct 3	Oct 12	Oct 22	Nov 1	Nov 10
St. Maries	16°	Feb 3	Feb 15	Feb 28	Mar 13	Mar 24	Nov 5	Nov 15	Nov 26	Dec 7	Dec 17
(44 years)	20°	Feb 20	Mar 2	Mar 14	Mar 25	Apr 4	Oct 24	Nov 3	Nov 13	Nov 24	Dec 3
	24°	Mar 9	Mar 18	Mar 28	Apr 8	Apr 17	Oct 8	Oct 11	Oct 27	Nov 6	Nov 15
	28°	Apr 1	Apr 11	Apr 22	May 2	May 12	Sep 21	Sep 30	Oct 10	Oct 20	Oct 28
	32°	Apr 27	May 6	May 16	May 26	Jun 4	Aug 31	Sep 9	Sep 19	Sep 29	Oct 8
Sandpoint Exp. Sta.	16°	Feb 9	Feb 20	Mar 5	Mar 18	Mar 30	Nov 6	Nov 16	Nov 27	Dec 8	Dec 18
(53 years)	20°	Feb 26	Mar 8	Mar 19	Mar 31	Apr 10	Oct 21	Oct 30	Nov 10	Nov 20	Nov 30
	24°	Mar 14	Mar 23	Apr 3	Apr 13	Apr 22	Oct 9	Oct 18	Oct 28	Nov 7	Nov 16
	28°	Apr 10	Apr 20	May 1	May 12	May 21	Sep 17	Sep 26	Oct 6	Oct 15	Oct 24
	32°	Apr 29	May 8	May 18	May 28	Jun 6	Aug 28	Sep 6	Sep 16	Sep 26	Oct 5
Wallace	16°	Feb 9	Feb 20	Mar 5	Mar 18	Mar 30	Nov 3	Nov 13	Nov 24	Dec 5	Dec 15
(49 years)	20°	Feb 28	Mar 10	Mar 21	Apr 2	Apr 12	Oct 26	Nov 5	Nov 15	Nov 26	Dec 5
	24°	Mar 14	Mar 23	Apr 2	Apr 13	Apr 20	Oct 11	Oct 20	Oct 30	Nov 9	Nov 18
	28°	Apr 8	Apr 18	Apr 29	May 9	May 19	Sep 17	Sep 25	Oct 5	Oct 15	Oct 24
	32°	May 6	May 15	May 25	Jun 4	Jun 13	Oct 27	Sep 5	Sep 15	Sep 25	Oct 4
SOUTHWEST											
Arrowrock Dam	16°	Mar 13	Mar 24	Apr 6	Apr 19	May 1	Oct 12	Oct 22	Nov 2	Nov 13	Nov 23
(34 years)	20°	Mar 24	Apr 3	Apr 15	Apr 26	May 6	Sep 29	Oct 9	Oct 19	Oct 30	Nov 8
	24°	Apr 10	Apr 19	Apr 29	May 10	May 19	Sep 17	Sep 26	Oct 6	Oct 15	Oct 24
	28°	Apr 24	May 4	May 15	May 26	Jun 5	Sep 5	Sep 14	Sep 24	Oct 4	Oct 12
	32°	May 22	May 31	Jun 10	Jun 20	Jun 29	Aug 23	Sep 1	Sep 11	Sep 21	Sep 30
Boise A. P.	16°	Jan 23	Feb 4	Feb 17	Mar 2	Mar 14	Nov 10	Nov 20	Dec 1	Dec 12	Dec 22
(26 years)	20°	Feb 13	Feb 24	Mar 7	Mar 18	Mar 29	Nov 2	Nov 11	Nov 22	Dec 3	Dec 12
	24°	Mar 9	Mar 19	Mar 29	Apr 8	Apr 18	Oct 17	Oct 26	Nov 5	Nov 15	Nov 24
	28°	Mar 31	Apr 10	Apr 21	May 2	May 12	Oct 4	Oct 13	Oct 23	Nov 2	Nov 11
	32°	Apr 17	Apr 26	May 6	May 16	May 25	Sep 23	Oct 2	Oct 12	Oct 22	Oct 31

Table 2. Probability of spring and fall freezing thresholds (Cont.)

Station	Temp.	Percent probability of indicated temperature or lower occurring on or after date in spring.					Percent probability of indicated temperature or lower occurring on or before date in fall.				
		90%	75%	50%	25%	10%	10%	25%	50%	75%	90%
Caldwell	16°	Jan 28	Feb 8	Feb 21	Mar 6	Mar 18	Nov 5	Nov 14	Nov 25	Dec 6	Dec 16
(57 years)	20°	Feb 19	Mar 1	Mar 13	Mar 24	Apr 3	Oct 18	Oct 28	Nov 7	Nov 18	Nov 27
	24°	Mar 13	Mar 22	Apr 2	Apr 12	Apr 21	Oct 8	Oct 17	Oct 27	Nov 6	Nov 15
	28°	Apr 1	Apr 10	Apr 21	May 2	May 12	Sep 24	Oct 3	Oct 13	Oct 23	Nov 1
	32°	Apr 15	Apr 24	May 4	May 14	May 23	Sep 8	Sep 17	Sep 27	Oct 7	Oct 16
Cambridge	16°	Feb 14	Feb 25	Mar 10	Mar 23	Apr 4	Oct 24	Nov 3	Nov 14	Nov 25	Dec 5
(31 years)	20°	Feb 28	Mar 10	Mar 22	Apr 2	Apr 12	Oct 6	Oct 15	Oct 26	Nov 5	Nov 15
	24°	Mar 22	Apr 1	Apr 11	Apr 22	May 1	Sep 24	Oct 3	Oct 13	Oct 23	Nov 1
	28°	Apr 10	Apr 20	May 1	May 11	May 21	Sep 12	Sep 21	Sep 30	Oct 10	Oct 19
	32°	May 2	May 11	May 21	May 30	Jun 8	Aug 29	Sep 7	Sep 17	Sep 27	Oct 6
Cascade I NW	16°	Mar 10	Mar 21	Apr 3	Apr 16	Apr 28	Oct 11	Oct 21	Nov 1	Nov 12	Nov 22
(22 years)	20°	Mar 31	Apr 11	Apr 22	May 3	May 13	Sep 29	Oct 9	Oct 19	Oct 20	Nov 8
	24°	Apr 12	Apr 21	May 2	May 12	May 21	Sep 13	Sep 22	Oct 2	Oct 11	Oct 20
	28°	May 11	May 20	May 31	Jun 11	Jun 21	Aug 28	Sep 5	Sep 15	Sep 25	Oct 4
	32°	May 26	Jun 4	Jun 14	Jun 23	Jul 2	Aug 8	Aug 17	Aug 27	Sep 6	Sep 15
Council	16°	Feb 9	Feb 20	Mar 5	Mar 18	Mar 30	Oct 30	Nov 9	Nov 20	Dec 1	Dec 10
(27 years)	20°	Feb 25	Mar 7	Mar 18	Mar 30	Apr 9	Oct 19	Oct 29	Nov 8	Nov 19	Nov 28
	24°	Mar 15	Mar 25	Apr 4	Apr 14	Apr 24	Oct 10	Oct 18	Oct 28	Nov 7	Nov 16
	28°	Apr 5	Apr 15	Apr 26	May 7	May 16	Sep 24	Oct 3	Oct 13	Oct 23	Oct 31
	32°	Apr 21	Apr 30	May 10	May 20	May 29	Sep 7	Sep 16	Sep 26	Oct 6	Oct 15
Deer Flat Dam	16°	Jan 23	Feb 4	Feb 17	Mar 2	Mar 14	Nov 9	Nov 18	Nov 30	Dec 11	Dec 20
(26 years)	20°	Feb 16	Feb 26	Mar 9	Mar 20	Mar 31	Oct 25	Nov 3	Nov 14	Nov 24	Dec 4
	24°	Mar 7	Mar 16	Mar 27	Apr 6	Apr 15	Oct 16	Oct 25	Nov 4	Nov 14	Nov 23
	28°	Mar 25	Apr 4	Apr 15	Apr 25	May 5	Oct 3	Oct 12	Oct 22	Nov 1	Nov 9
	32°	Apr 7	Apr 16	Apr 26	May 6	May 15	Sep 20	Sep 29	Oct 9	Oct 19	Oct 28
Emmett 2 E	16°	Jan 3	Feb 3	Feb 16	Mar 1	Mar 13	Nov 8	Nov 17	Nov 29	Dec 10	Dec 19
(29 years)	20°	Feb 19	Mar 1	Mar 13	Mar 24	Apr 3	Oct 8	Oct 18	Oct 28	Nov 8	Nov 17
	24°	Mar 13	Mar 23	Apr 2	Apr 12	Apr 22	Oct 6	Oct 15	Oct 25	Nov 4	Nov 13
	28°	Mar 31	Apr 10	Apr 21	May 2	May 12	Sep 23	Oct 2	Oct 12	Oct 21	Oct 30
	32°	Apr 26	May 5	May 15	May 25	Jun 3	Sep 5	Sep 14	Sep 24	Oct 4	Oct 13
Grand View	16°	Feb 6	Feb 18	Mar 3	Mar 16	Mar 27	Oct 26	Nov 5	Nov 16	Nov 27	Dec 7
(29 years)	20°	Mar 3	Mar 13	Mar 24	Apr 5	Apr 15	Oct 16	Oct 25	Nov 5	Nov 15	Nov 27
	24°	Mar 19	Mar 29	Apr 8	Apr 18	Apr 28	Oct 5	Oct 14	Oct 24	Nov 3	Nov 12
	28°	Apr 3	Apr 13	Apr 24	May 5	May 15	Sep 20	Sep 28	Oct 8	Oct 18	Oct 27
	32°	Apr 18	Apr 27	May 7	May 17	May 26	Sep 7	Sep 16	Sep 26	Oct 6	Oct 15
Idaho City	16°	Mar 8	Mar 19	Apr 1	Apr 14	Apr 26	Oct 11	Oct 21	Nov 1	Nov 12	Nov 22
(32 years)	20°	Apr 2	Apr 12	Apr 23	May 4	May 15	Sep 28	Oct 8	Oct 18	Oct 29	Nov 7
	24°	Apr 24	May 3	May 14	May 24	Jun 3	Sep 10	Sep 19	Sep 29	Oct 9	Oct 18
	28°	May 16	May 26	Jun 6	Jun 17	Jun 26	Aug 25	Sep 3	Sep 13	Sep 22	Oct 1
	32°	Jun 4	Jun 13	Jun 23	Jul 2	Jul 11	Jul 31	Aug 9	Aug 19	Aug 29	Sep 7
Kuna 2 NNE	16°	Feb 2	Feb 14	Feb 27	Mar 12	Mar 23	Nov 2	Nov 12	Nov 23	Dec 4	Dec 14
(28 years)	20°	Feb 25	Mar 7	Mar 18	Mar 29	Apr 9	Oct 19	Oct 28	Nov 8	Nov 18	Nov 28
	24°	Mar 21	Mar 30	Apr 10	Apr 20	Apr 29	Oct 7	Oct 16	Oct 26	Nov 5	Nov 14
	28°	Apr 4	Apr 13	Apr 24	May 5	May 15	Sep 26	Oct 5	Oct 15	Oct 24	Nov 2
	32°	Apr 20	Apr 29	May 9	May 19	May 28	Sep 11	Sep 20	Sep 30	Oct 10	Oct 19
Lowman	16°	Mar 8	Mar 20	Apr 2	Apr 14	Apr 26	Oct 11	Oct 21	Nov 1	Nov 12	Nov 22
(19 years)	20°	Mar 30	Apr 9	Apr 21	May 2	May 12	Oct 3	Oct 13	Oct 23	Nov 3	Nov 12
	24°	May 2	May 11	May 21	Jun 1	Jun 10	Sep 13	Sep 22	Oct 2	Oct 11	Oct 20
	28°	May 16	May 26	Jun 6	Jun 17	Jun 26	Aug 18	Aug 27	Sep 6	Sep 16	Sep 2
	32°	Jun 10	Jun 19	Jun 29	Jul 9	Jul 18	Jul 9	Jul 18	Jul 28	Aug 7	Aug 16
McCall	16°	Mar 13	Mar 25	Apr 7	Apr 20	May 1	Oct 14	Oct 24	Nov 4	Nov 15	Nov 25
(33 years)	20°	Apr 1	Apr 11	Apr 22	May 4	May 14	Oct 1	Oct 10	Oct 21	Nov 1	Nov 10
	24°	Apr 14	Apr 23	May 4	May 14	May 23	Sep 16	Sep 25	Oct 5	Oct 15	Oct 24
	28°	May 6	May 16	May 27	Jun 7	Jun 17	Aug 27	Sep 5	Sep 14	Sep 24	Oct 3
	32°	May 28	Jun 6	Jun 16	Jun 26	Jul 5	Aug 4	Aug 13	Aug 23	Sep 2	Sep 11

Table 2. Probability of spring and fall freezing thresholds (Cont.)

Station	Temp.	Percent probability of indicated temperature or lower occurring on or after date in spring. 90%	75%	50%	25%	10%	Percent probability of indicated temperature or lower occurring on or before date in fall. 10%	25%	50%	75%	90%
SOUTHWEST											
Mountain Home (30 years)	16°	Feb 10	Feb 22	Mar 7	Mar 19	Mar 31	Oct 28	Nov 7	Nov 18	Nov 29	Dec 9
	20°	Mar 6	Mar 17	Mar 28	Apr 8	Apr 19	Oct 14	Oct 23	Nov 3	Nov 13	Nov 23
	24°	Mar 26	Apr 5	Apr 15	Apr 25	May 5	Oct 1	Oct 10	Oct 20	Oct 30	Nov 8
	28°	Apr 12	Apr 22	May 3	May 14	May 23	Sep 17	Sep 26	Oct 6	Oct 15	Oct 24
	32°	Apr 30	May 9	May 19	May 29	Jun 7	Sep 4	Sep 13	Sep 23	Oct 3	Oct 12
Nampa (21 years)	16°	Feb 2	Feb 14	Feb 27	Mar 11	Mar 23	Nov 10	Nov 20	Dec 1	Dec 12	Dec 22
	20°	Feb 24	Mar 6	Mar 17	Mar 29	Apr 8	Oct 26	Nov 5	Nov 15	Nov 26	Dec 5
	24°	Mar 19	Mar 28	Apr 8	Apr 20	Apr 30	Oct. 12	Oct 21	Oct 31	Nov 9	Nov 18
	28°	Mar 30	Apr 9	Apr 20	May 1	May 10	Sep 27	Oct 6	Oct 16	Oct 25	Nov 3
	32°	Apr 17	Apr 26	May 6	May 16	May 25	Sep 16	Sep 25	Oct 5	Oct 15	Oct 24
New Meadows R. S. (28 years)	16°	Mar 10	Mar 21	Apr 3	Apr 16	Apr 28	Sep 29	Oct 9	Oct 20	Oct 31	Nov 10
	20°	Mar 31	Apr 10	Apr 21	May 3	May 13	Sep 12	Sep 21	Oct 2	Oct 12	Oct 21
	24°	Apr 28	May 7	May 17	May 28	Jun 6	Aug 31	Sep 9	Sep 19	Sep 29	Oct 8
	28°	May 13	May 23	Jun 3	Jun 14	Jun 24	Aug 7	Aug 15	Aug 25	Sep 4	Sep 13
	32°	Jun 7	Jun 16	Jun 26	Jul 5	Jul 14	Jul 17	Jul 26	Aug 5	Aug 15	Aug 24
Ola 4 S (11 years)	16°	Feb 14	Feb 25	Mar 10	Mar 23	Apr 4	Oct 23	Nov 2	Nov 13	Nov 24	Dec 4
	20°	Mar 6	Mar 16	Mar 28	Apr 8	Apr 18	Oct 10	Oct 19	Oct 30	Nov 9	Nov 19
	24°	Mar 29	Apr 8	Apr 18	Apr 28	May 8	Sep 28	Oct 7	Oct 17	Oct 27	Nov 5
	28°	Apr 17	Apr 27	May 8	May 18	May 28	Sep 14	Sep 23	Oct 3	Oct 13	Oct 22
	32°	May 4	May 13	May 23	Jun 2	June 11	Aug 29	Sep 7	Sep 17	Sep 27	Oct 6
Parma Exp. Sta. (40 years)	16°	Jan 31	Feb 12	Feb 25	Mar 9	Mar 21	Nov 5	Nov 14	Nov 26	Dec 7	Dec 16
	20°	Feb 22	Mar 4	Mar 16	Mar 27	Apr 6	Oct 19	Oct 28	Nov 8	Nov 18	Nov 28
	24°	Mar 21	Mar 30	Apr 10	Apr 20	Apr 29	Oct. 10	Oct 18	Oct 28	Nov 7	Nov 16
	28°	Apr 3	Apr 13	Apr 24	May 4	May 11	Sep 22	Oct 1	Oct 11	Oct 21	Oct 29
	32°	Apr 17	Apr 26	May 6	May 16	May 25	Sep 8	Sep 17	Sep 27	Oct 7	Oct 16
Payette (36 years)	16°	Jan 23	Feb 3	Feb 16	Mar 1	Mar 13	Nov 8	Nov 18	Nov 29	Dec 10	Dec 20
	20°	Feb 13	Feb 23	Mar 7	Mar 18	Mar 28	Oct 23	Nov 2	Nov 12	Nov 23	Dec 2
	24°	Mar 7	Mar 16	Mar 27	Apr 6	Apr 16	Oct 10	Oct 19	Oct 29	Nov 7	Nov 16
	28°	Apr 2	Apr 11	Apr 22	May 3	May 13	Sep 27	Oct 6	Oct 16	Oct 26	Nov 3
	32°	Apr 14	Apr 23	May 3	May 13	May 22	Sep 12	Sep 21	Oct 1	Oct 10	Oct 19
Weiser (33 years)	16°	Jan 22	Feb 3	Feb 16	Feb 28	Mar 12	Nov 5	Nov 15	Nov 26	Dec 7	Dec 17
	20°	Feb 20	Mar 2	Mar 13	Mar 25	Apr 4	Oct 20	Oct 30	Nov 9	Nov 20	Nov 29
	24°	Mar 13	Mar 22	Apr 2	Apr 12	Apr 22	Oct 9	Oct 18	Oct 28	Nov 6	Nov 15
	28°	Mar 29	Apr 8	Apr 19	Apr 30	May 9	Sep 28	Oct 7	Oct 17	Oct 26	Nov 4
	32°	Apr 16	Apr 25	May 5	May 15	May 24	Sep 12	Sep 21	Oct 1	Oct 11	Oct 20
SOUTH CENTRAL											
Bliss (31 years)	16°	Feb 9	Feb 21	Mar 6	Mar 19	Mar 31	Oct 28	Nov 7	Nov 18	Nov 29	Dec 9
	20°	Mar 10	Mar 20	Mar 31	Apr 12	Apr 22	Oct 16	Oct 26	Nov 5	Nov 16	Nov 25
	24°	Mar 29	Apr 8	Apr 18	Apr 28	May 8	Oct 1	Oct 10	Oct 20	Oct 29	Nov 7
	28°	Apr 15	Apr 24	May 5	May 16	May 26	Sep 17	Sep 26	Oct 6	Oct 15	Oct 24
	32°	May 1	May 10	May 20	May 30	Jun 8	Sep 6	Sep 15	Sep 25	Oct 5	Oct 14
Buhl (27 years)	16°	Feb 1	Feb 13	Feb 26	Mar 11	Mar 23	Nov 5	Nov 15	Nov 26	Dec 7	Dec 17
	20°	Feb 23	Mar 5	Mar 16	Mar 27	Apr 7	Oct 26	Nov 4	Nov 15	Nov 25	Dec 5
	24°	Mar 13	Mar 22	Apr 1	Apr 12	Apr 21	Oct 17	Oct 26	Nov 5	Nov 14	Nov 23
	28°	Mar 30	Apr 9	Apr 20	May 1	May 11	Oct 3	Oct 12	Oct 21	Oct 31	Nov 9
	32°	Apr 18	Apr 27	May 7	May 17	May 26	Sep 20	Sep 29	Oct 9	Oct 19	Oct 28
Burley (30 years)	16°	Feb 5	Feb 16	Mar 1	Mar 14	Mar 26	Oct 29	Nov 7	Nov 18	Nov 29	Dec 9
	20°	Feb 28	Mar 10	Mar 22	Apr 2	Apr 12	Oct 23	Nov 2	Nov 12	Nov 23	Dec 2
	24°	Mar 20	Mar 29	Apr 9	Apr 19	Apr 28	Oct 7	Oct 16	Oct 26	Nov 5	Nov 14
	28°	Mar 28	Apr 7	Apr 18	Apr 28	May 8	Sep 24	Oct 3	Oct 13	Oct 23	Nov 1
	32°	Apr 21	Apr 30	May 10	May 20	May 29	Sep 13	Sep 22	Oct 2	Oct 12	Oct 21
Fairfield R. S. (14 years)	16°	Mar 11	Mar 23	Apr 5	Apr 18	Apr 29	Oct 2	Oct 12	Oct 23	Nov 3	Nov 13
	20°	Mar 24	Apr 3	Apr 15	Apr 26	May 6	Sep 22	Oct 1	Oct 12	Oct 22	Nov 1
	24°	Apr 12	Apr 22	May 2	May 12	May 22	Sep 8	Sep 16	Sep 26	Oct 6	Oct 15
	28°	May 9	May 19	May 30	Jun 10	Jun 20	Oct 28	Sep 6	Sep 16	Sep 26	Oct 4
	32°	Jun 3	Jun 12	Jun 22	Jul 2	Jul 11	Aug 10	Aug 19	Aug 29	Sep 8	Sep 17

Table 2. Probability of spring and fall freezing thresholds (Cont.)

Station	Temp.	Percent probability of indicated temperature or lower occurring on or after date in spring.					Percent probability of indicated temperature or lower occurring on or before date in fall.				
		90%	75%	50%	25%	10%	10%	25%	50%	75%	90%
SOUTH CENTRAL											
Hailey R. S.	16°	Mar 6	Mar 18	Mar 31	Apr 12	Apr 24	Oct 15	Oct 24	Nov 4	Nov 15	Nov 25
(32 years)	20°	Mar 20	Mar 31	Apr 11	Apr 22	May 3	Oct 2	Oct 12	Oct 22	Nov 2	Nov 11
	24°	Apr 9	Apr 19	Apr 29	May 9	May 19	Sep 22	Oct 1	Oct 11	Oct 20	Oct 29
	28°	Apr 28	May 7	May 18	May 29	Jun 8	Sep 7	Sep 16	Sep 26	Oct 6	Oct 14
	32°	May 23	Jun 1	Jun 11	Jun 21	Jun 30	Aug 26	Sep 4	Sep 14	Sep 23	Oct 2
Hazelton	16°	Feb 5	Feb 17	Mar 2	Mar 15	Mar 26	Oct 27	Nov 5	Nov 16	Nov 27	Dec 7
(29 years)	20°	Mar 1	Mar 12	Mar 23	Apr 3	Apr 14	Oct 19	Oct 29	Nov 8	Nov 19	Nov 28
	24°	Mar 21	Mar 31	Apr 10	Apr 20	Apr 30	Oct 2	Oct 11	Oct 21	Oct 31	Nov 9
	28°	Apr 7	Apr 17	Apr 28	May 8	May 18	Sep 20	Sep 29	Oct 9	Oct 19	Oct 27
	32°	Apr 25	May 4	May 14	May 24	Jun 2	Sep 5	Sep 14	Sep 24	Oct 4	Oct 13
Hill City	16°	Mar 7	Mar 19	Apr 1	Apr 14	Apr 25	Sep 28	Oct 8	Oct 19	Oct 30	Nov 9
(33 years)	20°	Mar 27	Apr 6	Apr 17	Apr 28	May 9	Sep 14	Sep 23	Oct 4	Oct 14	Oct 24
	24°	Apr 24	May 3	May 13	May 24	Jun 2	Sep 4	Sep 13	Sep 23	Oct 2	Oct 11
	28°	May 14	May 28	Jun 4	Jun 14	Jun 24	Aug 25	Sep 3	Sep 13	Sep 22	Oct 1
	32°	Jun 3	Jun 12	Jun 22	Jul 2	Jul 11	Aug 1	Aug 10	Aug 20	Aug 30	Sep 8
Hollister	16°	Feb 24	Mar 8	Mar 21	Apr 3	Apr 14	Oct 25	Nov 4	Nov 15	Nov 26	Dec 6
(30 years)	20°	Mar 21	Mar 31	Apr 12	Apr 23	May 3	Oct 14	Oct 24	Nov 3	Nov 14	Nov 23
	24°	Apr 4	Apr 14	Apr 24	May 4	May 14	Sep 29	Oct 8	Oct 18	Oct 28	Nov 6
	28°	Apr 22	May 2	May 13	May 24	Jun 3	Sep 16	Sep 25	Oct 5	Oct 14	Oct 23
	32°	May 9	May 18	May 28	Jun 7	Jun 16	Sep 4	Sep 13	Sep 23	Oct 3	Oct 12
Jerome	16°	Feb 9	Feb 21	Mar 6	Mar 19	Mar 30	Oct 29	Nov 8	Nov 19	Nov 30	Dec 10
(29 years)	20°	Mar 3	Mar 14	Mar 25	Apr 5	Apr 16	Oct 18	Oct 27	Nov 7	Nov 17	Nov 27
	24°	Mar 21	Mar 30	Apr 9	Apr 20	Apr 29	Oct 8	Oct 17	Oct 27	Nov 6	Nov 15
	28°	Apr 8	Apr 18	Apr 29	May 10	May 20	Sep 26	Oct 5	Oct 15	Oct 24	Nov 2
	32°	Apr 24	May 3	May 13	May 23	Jun 1	Sep 11	Sep 20	Sep 30	Oct 10	Oct 19
Minidoka Dam	16°	Feb 7	Feb 19	Mar 4	Mar 17	Mar 28	Oct 26	Nov 5	Nov 16	Nov 27	Dec 7
(16 years)	20°	Feb 25	Mar 7	Mar 18	Mar 29	Apr 9	Oct 22	Nov 1	Nov 11	Nov 22	Dec 1
	24°	Mar 19	Mar 28	Apr 7	Apr 18	Apr 27	Oct 16	Oct 25	Nov 4	Nov 14	Nov 22
	28°	Apr 1	Apr 11	Apr 22	May 2	May 12	Sep 30	Oct 9	Oct 18	Oct 28	Nov 6
	32°	Apr 19	Apr 28	May 8	May 18	May 27	Sep 16	Sep 25	Oct 5	Oct 15	Oct 24
Oakley	16°	Feb 25	Mar 8	Mar 21	Apr 3	Apr 15	Oct 26	Nov 5	Nov 16	Nov 27	Dec 7
(27 years)	20°	Mar 13	Mar 24	Apr 4	Apr 15	Apr 25	Oct 15	Oct 24	Nov 4	Nov 14	Nov 24
	24°	Mar 29	Apr 7	Apr 18	Apr 28	May 7	Oct 5	Oct 14	Oct 24	Nov 3	Nov 12
	28°	Apr 14	Apr 24	May 5	May 15	May 25	Sep 18	Sep 26	Oct 6	Oct 16	Oct 25
	32°	May 7	May 16	May 26	Jun 5	Jun 14	Sep 5	Sep 14	Sep 24	Oct 4	Oct 13
Richfield	16°	Feb 27	Mar 11	Mar 24	Apr 6	Apr 17	Oct 15	Oct 25	Nov 5	Nov 16	Nov 26
(25 years)	20°	Mar 22	Apr 1	Apr 12	Apr 24	May 4	Oct 7	Oct 17	Oct 27	Nov 7	Nov 16
	24°	Apr 8	Apr 18	Apr 28	May 8	May 18	Sep 24	Oct 3	Oct 13	Oct 23	Nov 1
	28°	Apr 29	May 3	May 14	May 25	Jun 3	Sep 13	Sep 22	Oct 1	Oct 11	Oct 20
	32°	May 17	May 26	Jun 5	Jun 15	Jun 24	Aug 27	Sep 5	Sep 15	Sep 25	Oct 4
Rupert	16°	Feb 13	Feb 25	Mar 10	Mar 23	Apr 3	Oct 25	Nov 4	Nov 15	Nov 26	Dec 6
(29 years)	20°	Mar 7	Mar 17	Mar 28	Apr 9	Apr 19	Oct 17	Oct 27	Nov 6	Nov 17	Nov 26
	24°	Mar 23	Apr 2	Apr 12	Apr 22	May 2	Oct 5	Oct 14	Oct 24	Nov 3	Nov 12
	28°	Apr 7	Apr 17	Apr 28	May 9	May 18	Sep 22	Oct 1	Oct 11	Oct 20	Oct 29
	32°	Apr 21	Apr 30	May 10	May 23	May 29	Sep 5	Sep 14	Sep 24	Oct 4	Oct 13
Shoshone	16°	Feb 22	Mar 5	Mar 18	Mar 31	Apr 12	Oct 18	Oct 28	Nov 8	Nov 19	Nov 29
(28 years)	20°	Mar 20	Mar 30	Apr 10	Apr 22	May 2	Oct 12	Oct 21	Nov 1	Nov 11	Nov 20
	24°	Apr 6	Apr 15	Apr 26	May 6	May 16	Sep 27	Oct 6	Oct 16	Oct 26	Nov 4
	28°	Apr 21	May 1	May 12	May 22	Jun 1	Sep 12	Sep 20	Sep 30	Oct 10	Oct 19
	32°	May 5	May 14	May 24	Jun 3	Jun 12	Aug 31	Sep 9	Sep 19	Sep 29	Oct 8
Twin Falls 2 NNE	16°	Feb 3	Feb 14	Feb 27	Mar 12	Mar 24	Oct 30	Nov 9	Nov 20	Dec 1	Dec 11
(58 years)	20°	Feb 28	Mar 10	Mar 21	Apr 2	Apr 12	Oct 22	Oct 31	Nov 11	Nov 22	Dec 1
	24°	Mar 21	Mar 31	Apr 10	Apr 20	Apr 30	Oct 4	Oct 13	Oct 23	Nov 2	Nov 11
	28°	Apr 5	Apr 15	Apr 26	May 7	May 16	Sep 20	Sep 29	Oct 9	Oct 19	Oct 27
	32°	Apr 24	May 3	May 13	May 23	Jun 1	Sep 5	Sep 14	Sep 24	Oct 3	Oct 12

Table 2. Probability of spring and fall freezing thresholds (Cont.)

Station	Temp.	Percent probability of indicated temperature or lower occurring on or after date in spring.					Percent probability of indicated temperature or lower occurring on or before date in fall.				
		90%	75%	50%	25%	10%	10%	25%	50%	75%	90%
EASTERN											
Aberdeen Exp. Sta.	16°	Mar 5	Mar 16	Mar 29	Apr 11	Apr 23	Oct 16	Oct 26	Nov 6	Nov 17	Nov 27
(33 years)	20°	Mar 21	Mar 31	Apr 12	Apr 23	May 3	Oct 2	Oct 12	Oct 22	Nov 2	Nov 11
	24°	Apr 7	Apr 17	Apr 27	May 7	May 17	Sep 22	Oct 1	Oct 11	Oct 21	Oct 30
	28°	Apr 22	May 2	May 13	May 24	Jun 2	Sep 9	Sep 18	Sep 28	Oct 8	Oct 16
	32°	May 11	May 20	May 30	Jun 9	Jun 18	Aug 28	Sep 6	Sep 16	Sep 25	Oct 4
Ashton 1 S	16°	Mar 11	Mar 23	Apr 5	Apr 18	Apr 29	Oct 13	Oct 22	Nov 3	Nov 14	Nov 23
(31 years)	20°	Mar 23	Apr 2	Apr 14	Apr 25	May 5	Sep 27	Oct 7	Oct 17	Oct 28	Nov 6
	24°	Apr 10	Apr 19	Apr 29	May 10	May 19	Sep 17	Sep 26	Oct 6	Oct 15	Oct 24
	28°	Apr 25	May 5	May 16	May 26	Jun 5	Sep 2	Sep 11	Sep 21	Oct 1	Oct 9
	32°	May 23	Jun 1	Jun 11	Jun 21	Jun 30	Aug 16	Aug 25	Sep 4	Sep 14	Sep 23
Blackfoot	16°	Feb 21	Mar 4	Mar 17	Mar 30	Apr 11	Oct 23	Nov 2	Nov 13	Nov 24	Dec 4
(27 years)	20°	Mar 10	Mar 21	Apr 1	Apr 12	Apr 23	Oct 14	Oct 24	Nov 3	Nov 14	Nov 23
	24°	Mar 23	Apr 1	Apr 12	Apr 22	May 2	Sep 29	Oct 8	Oct 18	Oct 28	Nov 5
	28°	Apr 9	Apr 19	Apr 29	May 10	May 20	Sep 18	Sep 27	Oct 7	Oct 17	Oct 25
	32°	Apr 27	May 6	May 16	May 26	Jun 4	Sep 4	Sep 13	Sep 23	Oct 3	Oct 12
Challis	16°	Mar 5	Mar 17	Mar 30	Apr 12	Apr 23	Oct 14	Oct 24	Nov 4	Nov 15	Nov 25
(32 years)	20°	Mar 23	Apr 2	Apr 13	Apr 24	May 5	Oct 7	Oct 17	Oct 27	Nov 7	Nov 16
	24°	Apr 6	Apr 16	Apr 26	May 7	May 16	Sep 25	Oct 3	Oct 13	Oct 23	Nov 1
	28°	Apr 22	May 2	May 12	May 23	Jun 2	Sep 10	Sep 19	Sep 29	Oct 9	Oct 7
	32°	May 11	May 20	May 30	Jun 9	Jun 18	Aug 29	Sep 7	Sep 17	Sep 27	Oct 6
Driggs	16°	Mar 23	Apr 4	Apr 17	Apr 30	May 12	Oct 6	Oct 16	Oct 27	Nov 7	Nov 17
(29 years)	20°	Apr 4	Apr 15	Apr 26	May 7	May 18	Sep 17	Sep 26	Oct 7	Oct 18	Oct 27
	24°	Apr 22	May 2	May 12	May 22	Jun 1	Sep 5	Sep 14	Sep 24	Oct 4	Oct 13
	28°	May 8	May 18	May 29	Jun 9	Jun 19	Aug 20	Aug 29	Sep 8	Sep 18	Sep 27
	32°	Jun 3	Jun 12	Jun 22	Jul 2	Jul 11	Jul 26	Aug 4	Aug 14	Aug 24	Sep 2
Dubois Exp. Sta.	16°	Mar 4	Mar 16	Mar 29	Apr 11	Apr 22	Oct 10	Oct 20	Oct 31	Nov 11	Nov 21
(37 Years)	20°	Mar 18	Mar 28	Apr 9	Apr 20	Apr 30	Oct 2	Oct 12	Oct 22	Nov 2	Nov 11
	24°	Apr 1	Apr 11	Apr 21	May 1	May 11	Sep 24	Oct 3	Oct 13	Oct 23	Nov 1
	28°	Apr 14	Apr 23	May 4	May 15	May 25	Sep 13	Sep 22	Oct 2	Oct 12	Oct 20
	32°	May 8	May 17	May 27	Jun 6	Jun 15	Aug 31	Sep 9	Sep 19	Sep 29	Oct 8
Fort Hall	16°	Mar 5	Mar 17	Mar 30	Apr 12	Apr 23	Oct 16	Oct 26	Nov 6	Nov 17	Nov 26
(30 years)	20°	Mar 17	Mar 27	Apr 8	Apr 19	Apr 29	Oct 1	Oct 10	Oct 21	Oct 31	Nov 10
	24°	Apr 9	Apr 18	Apr 29	May 9	May 18	Sep 18	Sep 27	Oct 7	Oct 17	Oct 26
	28°	Apr 20	Apr 30	May 11	May 22	May 31	Sep 6	Sep 15	Sep 25	Oct 4	Oct 13
	32°	May 8	May 17	May 27	Jun 6	Jun 15	Aug 23	Sep 1	Sep 11	Sep 21	Sep 30
Idaho Falls A. P.	16°	Feb 24	Mar 7	Mar 20	Apr 2	Apr 14	Oct 19	Oct 29	Nov 9	Nov 20	Nov 30
(34 years)	20°	Mar 13	Mar 23	Apr 4	Apr 15	Apr 25	Oct 11	Oct 21	Oct 31	Nov 11	Nov 20
	24°	Mar 29	Apr 8	Apr 18	Apr 28	May 8	Sep 30	Oct 9	Oct 19	Oct 29	Nov 6
	28°	Apr 13	Apr 23	May 4	May 14	May 24	Sep 16	Sep 25	Oct 5	Oct 14	Oct 23
	32°	May 3	May 12	May 22	Jun 1	Jun 10	Sep 3	Sep 12	Sep 22	Oct 2	Oct 11
Irwin 2 SE	16°	Mar 9	Mar 20	Apr 2	Apr 15	Apr 27	Oct 15	Oct 25	Nov 5	Nov 16	Nov 26
(29 years)	20°	Mar 24	Apr 4	Apr 15	Apr 26	May 6	Oct 2	Oct 12	Oct 22	Nov 2	Nov 11
	24°	Apr 8	Apr 17	Apr 27	May 8	May 17	Sep 18	Sep 27	Oct 7	Oct 16	Oct 25
	28°	Apr 27	May 7	May 18	May 29	Jun 8	Sep 3	Sep 12	Oct 22	Nov 2	Nov 11
	32°	May 24	Jun 2	Jun 12	Jun 22	Jul 1	Aug 19	Aug 28	Sep 7	Sep 17	Sep 26
Island Park Dam	16°	Mar 28	Apr 9	Apr 22	May 5	May 16	Oct 2	Oct 12	Oct 23	Nov 3	Nov 13
(28 years)	20°	Apr 11	Apr 21	May 2	May 14	May 24	Sep 18	Sep 27	Oct 8	Oct 18	Oct 28
	24°	May 1	May 10	May 20	May 31	Jun 9	Sep 3	Sep 12	Sep 22	Oct 2	Oct 11
	28°	May 20	May 30	Jun 10	Jun 20	Jun 30	Aug 13	Aug 22	Sep 1	Sep 10	Sep 19
	32°	Jun 8	Jun 17	Jun 27	Jul 6	Jul 15	Jul 24	Aug 2	Aug 12	Aug 22	Aug 10
Mackay R. S.	16°	Mar 10	Mar 22	Apr 4	Apr 17	Apr 28	Oct 14	Oct 23	Nov 4	Nov 15	Nov 24
(28 years)	20°	Mar 27	Apr 6	Apr 17	Apr 29	May 9	Oct 6	Oct 15	Oct 26	Nov 5	Nov 14
	24°	Apr 10	Apr 19	Apr 30	May 10	May 19	Sep 22	Oct 1	Oct 11	Oct 21	Oct 30
	28°	Apr 28	May 8	May 18	May 29	Jun 8	Sep 9	Sep 18	Sep 28	Oct 8	Oct 17
	32°	May 18	May 27	Jun 6	Jun 16	Jun 25	Aug 26	Sep 4	Sep 14	Sep 24	Oct 3

Table 2. Probability of spring and fall freezing thresholds (Cont.)

Station	Temp.	Percent probability of indicated temperature or lower occurring on or after date in spring. 90%	75%	50%	25%	10%	Percent probability of indicated temperature or lower occurring on or before date in fall. 10%	25%	50%	75%	90%
EASTERN											
Malad	16°	Feb 16	Feb 27	Mar 12	Mar 25	Apr 6	Oct 25	Nov 4	Nov 15	Nov 26	Dec 6
(33 years)	20°	Mar 7	Mar 17	Mar 29	Apr 9	Apr 19	Oct 19	Oct 28	Nov 8	Nov 18	Nov 27
	24°	Mar 24	Apr 3	Apr 13	Apr 23	May 3	Oct 6	Oct 15	Oct 25	Nov 4	Nov 13
	28°	Apr 11	Apr 21	May 2	May 12	May 22	Sep 22	Sep 30	Oct 10	Oct 20	Oct 29
	32°	Apr 29	May 8	May 18	May 28	Jun 6	Sep 6	Sep 15	Sep 25	Oct 5	Oct 14
Malad City A. P.	16°	Feb 28	Mar 12	Mar 25	Apr 6	Apr 18	Oct 18	Oct 28	Nov 8	Nov 19	Nov 29
(20 years)	20°	Mar 19	Mar 29	Apr 10	Apr 21	May 1	Oct 3	Oct 12	Oct 23	Nov 2	Nov 12
	24°	Apr 12	Apr 21	May 1	May 12	May 21	Sep 21	Sep 30	Oct 10	Oct 20	Oct 29
	28°	Apr 23	May 3	May 14	May 25	Jun 3	Sep 6	Sep 15	Sep 25	Oct 5	Oct 13
	32°	May 15	May 24	Jun 3	Jun 13	Jun 22	Aug 26	Sep 4	Sep 14	Sep 24	Oct 3
May R. S.	16°	Mar 15	Mar 27	Apr 9	Apr 22	May 3	Oct 4	Oct 14	Oct 25	Nov 5	Nov 15
(25 years)	20°	Mar 30	Apr 9	Apr 21	May 2	May 12	Sep 24	Oct 3	Oct 14	Oct 24	Nov 2
	24°	Apr 14	Apr 24	May 4	May 14	May 24	Sep 10	Sep 19	Sep 29	Oct 8	Oct 17
	28°	Apr 30	May 9	May 20	May 31	Jun 10	Aug 29	Sep 7	Sep 17	Sep 27	Oct 5
	32°	May 27	Jun 5	Jun 15	Jun 25	Jul 4	Aug 10	Aug 19	Aug 29	Sep 8	Sep 17
McCammon	16°	Feb 22	Mar 5	Mar 18	Mar 31	Apr 12	Oct 15	Oct 25	Nov 5	Nov 16	Nov 26
(15 years)	20°	Mar 18	Mar 28	Apr 8	Apr 20	Apr 30	Oct 8	Oct 18	Oct 28	Nov 8	Nov 17
	24°	Apr 2	Apr 12	Apr 22	May 2	May 12	Sep 22	Oct 1	Oct 11	Oct 21	Oct 30
	28°	Apr 24	May 4	May 15	May 26	Jun 4	Sep 5	Sep 14	Sep 24	Oct 4	Oct 13
	32°	May 11	May 20	May 30	Jun 9	Jun 18	Aug 23	Sep 1	Sep 11	Sep 21	Sep 30
Montpelier R. S.	16°	Mar 12	Mar 23	Apr 5	Apr 18	Apr 30	Oct 11	Oct 20	Oct 31	Nov 11	Nov 21
(31 years)	20°	Mar 30	Apr 9	Apr 20	May 2	May 12	Sep 26	Oct 5	Oct 16	Oct 26	Nov 5
	24°	Apr 14	Apr 24	May 4	May 14	May 24	Sep 12	Sep 21	Oct 1	Oct 11	Oct 20
	28°	May 6	May 16	May 27	Jun 7	Jun 16	Sep 1	Sep 10	Sep 20	Sep 30	Oct 8
	32°	May 27	Jun 5	Jun 15	Jun 24	Jul 3	Aug 15	Aug 24	Sep 3	Sep 13	Sep 22
Pocatello A. P.	16°	Feb 11	Feb 23	Mar 8	Mar 21	Apr 1	Oct 27	Nov 6	Nov 17	Nov 28	Dec 8
(25 years)	20°	Feb 27	Mar 9	Mar 21	Apr 1	Apr 11	Oct 17	Oct 26	Nov 6	Nov 16	Nov 26
	24°	Mar 15	Mar 25	Apr 4	Apr 14	Apr 24	Oct 9	Oct 18	Oct 28	Nov 7	Nov 16
	28°	Apr 2	Apr 12	Apr 23	May 4	May 14	Sep 28	Oct 7	Oct 17	Oct 26	Nov 4
	32°	Apr 19	Apr 28	May 8	May 18	May 27	Sep 12	Sep 21	Oct 1	Oct 11	Oct 20
Preston 2 SE	16°	Feb 20	Mar 4	Mar 17	Mar 30	Apr 10	Oct 21	Oct 31	Nov 11	Nov 22	Dec 2
(30 years)	20°	Mar 12	Mar 22	Apr 2	Apr 14	Apr 24	Oct 15	Oct 24	Nov 4	Nov 15	Nov 24
	24°	Mar 28	Apr 6	Apr 16	Apr 27	May 6	Oct 3	Oct 12	Oct 22	Oct 31	Nov 9
	28°	Apr 16	Apr 26	May 7	May 17	May 27	Sep 14	Sep 23	Oct 3	Oct 12	Oct 21
	32°	May 5	May 14	May 24	Jun 3	Jun 12	Aug 31	Sep 9	Sep 19	Sep 29	Oct 8
Salmon	16°	Mar 3	Mar 15	Mar 28	Apr 9	Apr 21	Oct 12	Oct 21	Nov 2	Nov 13	Nov 22
(32 years)	20°	Mar 26	Apr 5	Apr 17	Apr 28	May 8	Sep 29	Oct 9	Oct 19	Oct 30	Nov 8
	24°	Apr 9	Apr 19	Apr 29	May 9	May 19	Sep 18	Sep 27	Oct 7	Oct 17	Oct 26
	28°	Apr 28	May 7	May 18	May 29	Jun 8	Sep 2	Sep 11	Sep 21	Sep 30	Oct 9
	32°	May 18	May 27	Jun 6	Jun 16	Jun 25	Aug 22	Aug 31	Sep 10	Sep 19	Sep 28
Spencer R. S.	16°	Mar 29	Apr 9	Apr 22	May 5	May 17	Oct 3	Oct 13	Oct 24	Nov 4	Nov 14
(21 years)	20°	Apr 17	Apr 27	May 9	May 20	May 30	Sep 20	Sep 30	Oct 10	Oct 21	Oct 30
	24°	May 3	May 13	May 23	Jun 2	Jun 12	Sep 6	Sep 15	Sep 25	Oct 5	Oct 14
	28°	May 24	Jun 3	Jun 14	Jun 25	Jul 5	Oct 26	Sep 4	Sep 14	Sep 24	Oct 2
	32°	Jun 8	Jun 17	Jun 27	Jul 7	Jul 16	Jul 29	Aug 7	Aug 17	Aug 27	Sep 5
Sugar	16°	Mar 7	Mar 19	Apr 1	Apr 14	Apr 25	Oct 11	Oct 21	Nov 1	Nov 12	Nov 22
(25 years)	20°	Mar 19	Mar 29	Apr 9	Apr 20	May 1	Oct 1	Oct 11	Oct 21	Nov 1	Nov 10
	24°	Apr 5	Apr 15	Apr 25	May 5	May 15	Sep 19	Sep 28	Oct 8	Oct 18	Oct 27
	28°	Apr 24	May 4	May 15	May 26	Jun 5	Sep 4	Sep 12	Sep 22	Oct 2	Oct 11
	32°	May 15	May 24	Jun 3	Jun 13	Jun 22	Aug 20	Aug 29	Sep 8	Sep 18	Sep 27
Tetonia Exp. Sta.	16°	Mar 25	Apr 6	Apr 19	May 2	May 13	Oct 3	Oct 13	Oct 24	Nov 1	Nov 14
(10 years)	20°	Apr 11	Apr 21	May 2	May 14	May 24	Sep 20	Sep 29	Oct 10	Oct 20	Oct 30
	24°	Apr 19	Apr 29	May 9	May 19	May 29	Sep 9	Sep 18	Sep 28	Oct 8	Oct 17
	28°	May 17	May 26	Jun 6	Jun 17	Jun 27	Aug 26	Sep 4	Sep 14	Sep 24	Oct 3
	32°	Jun 7	Jun 16	Jun 26	Jul 5	Jul 14	Aug 10	Aug 19	Aug 29	Sep 8	Sep 17

Table 3. Length of growing season for five temperature thresholds.

Station Name	Temperature (Degrees)					Years Record
	16	20	24	28	32	
North						
Avery R. S.	271	239	204	160	105	32
Bonners Ferry	268	246	211	173	133	30
Coeur d'Alene	279	247	212	175	133	48
Cottonwood	254	224	187	148	108	32
Fenn R. S.	294	256	236	199	158	23
Grangeville	259	235	207	169	131	34
Kellogg	277	254	219	184	138	43
Kooskia	292	256	225	191	144	40
Lewiston A. P.	309	285	250	212	180	17
Moscow U of I	285	257	234	181	136	67
Nez Perce	263	238	210	162	114	34
Pierce R. S.	237	204	172	126	70	21
Porthill	254	233	197	151	125	61
Potlatch	269	242	209	160	109	39
Priest River Exp. Sta.	239	215	182	133	89	51
Riggins R. S.	298	278	241	210	178	21
St. Maries	271	244	213	171	126	44
Sandpoint Exp. Sta.	267	236	208	158	121	53
Wallace	264	239	211	159	113	49
Southwest						
Arrowrock Dam	210	187	160	132	93	34
Boise A. P.	287	260	221	185	159	26
Caldwell	307	239	208	175	146	57
Cambridge	249	218	185	152	119	31
Cascade 1 NW	212	180	153	107	74	22
Council	260	235	207	170	139	27
Deer Flat Dam	286	250	222	190	166	26
Emmett 2 E	286	229	206	174	132	29
Grand View	258	226	199	167	142	29
Idaho City	214	178	138	99	57	32
Kuna 2 NNE	269	235	199	174	113	28
Lowman	213	185	134	92	29	19
McCall	211	182	154	110	68	33
Mountain Home	256	220	188	156	127	30
Nampa 2 NW	277	243	206	179	152	21
New Meadows R. S.	200	164	125	83	40	28
Ola 4 S	248	216	182	148	117	11
Parma Exp. Sta.	274	237	201	170	144	40
Payette	286	250	216	177	151	34
Weiser 2 SE	283	241	209	181	149	33

Table 3. Length of growing season for five temperature thresholds (cont.)

Station Name	Temperature (Degrees)					Years Record
	16	20	24	28	32	
South Central						
Bliss	257	219	185	154	128	31
Buhl	273	244	218	184	155	27
Burley	262	235	200	178	145	30
Fairfield R. S.	201	180	147	109	68	14
Hailey	218	194	165	131	95	32
Hazelton	259	230	194	164	133	29
Hill City	201	170	133	101	59	33
Hollister	239	205	177	145	118	30
Jerome	258	227	201	169	140	29
Minidoka Dam	257	238	211	179	150	16
Oakley	240	214	189	154	121	27
Richfield	226	198	168	140	102	25
Rupert	250	223	195	166	137	29
Shoshone	235	205	173	141	118	28
Twin Falls 2 NNE	266	235	196	166	134	58
Eastern						
Aberdeen Exp. Sta.	222	195	167	138	109	33
Ashton 1 S	212	186	160	128	85	31
Blackfoot	241	216	189	161	130	27
Challis	219	197	170	140	110	32
Driggs	193	164	135	102	53	29
Dubois Exp. Sta.	216	196	175	151	115	37
Fort Hall	221	196	161	137	107	30
Idaho Falls A. P.	234	210	184	154	123	34
Irwin 2 SE	217	190	163	157	87	29
Island Park Dam	184	159	125	83	46	28
Mackay R. S.	214	192	164	133	100	28
Malad	248	224	195	161	130	33
Malad A. P.	228	196	162	134	103	20
May R. S.	199	176	148	120	75	25
McCammon	232	203	172	132	104	15
Montpelier R. S.	209	179	150	116	80	31
Pocatello A. P.	254	230	207	177	146	25
Preston 2 SE	239	216	189	149	118	30
Salmon	219	185	161	126	96	32
Spencer R. S.	185	154	125	92	51	21
Sugar	214	195	166	130	97	25
Tetonia Exp. Sta.	188	161	142	100	64	10

Table 4. Extreme occurrences of temperature thresholds.

Station	Number of Years	28° Fahrenheit				32° Fahrenheit			
		Spring		Fall		Spring		Fall	
		Earliest	Latest	Earliest	Latest	Earliest	Latest	Earliest	Latest
North									
Avery R. S.	32	Mar 22-40	Jul 6-59	Aug 30-52	Nov 17-47	Apr 27-57	Jul 6-59	Jul 21-52	Oct 18-42
Bonners Ferry	30	Apr 3-42	May 23-60	Aug 24-10	Nov 18-37	Apr 18-39	Jun 13-45	Aug 21-45	Oct 18-37
Coeur d'Alene	48	Mar 14-32	Jun 11-46	Sep 10-21	Nov 23-62	Apr 8-36	Jun 18-49	Sep 7-29	Oct. 31-27
Cottonwood	32	Apr 5-36	Jun 10-38	Sep 7-39	Nov 11-44	Apr 27-57	Jul 5-32	Aug 25-54	Oct 20-63
Fenn R. S.	23	Mar 13-32	May 29-51	Oct 6-52	Nov 24-32	Apr 16-57	Jun 2-51	Sep 7-39	Oct 29-60
Grangeville	34	Mar 31-30	May 22-60	Sep 8-62	Nov 13-44	Apr 9-36	Jun 13-52	Sep 3-58	Oct 28-40
Kellogg	43	Mar 22-43	May 15-32	Aug 25-10	Nov 21-47	Apr 23-57	Jun 2-20	Aug 19-57	Nov 7-62
Kooskia	40	Mar 21-60	May 8-09	Sep 13-21	Nov 22-47	Apr 2-30	Jun 5-56	Sep 9-62	Nov 5-40
Lewiston A. P.	17	Mar 6-47	May 2-54	Oct 1-50	Nov 28-62	Mar 27-58	May 30-51	Sep 19-57	Nov 15-62
Moscow, U of I	67	Mar 11-40	May 30-51	Jul 18-39	Nov 29-37	Apr 6-36	Jul 3-62	Jul 18-39	Nov 3-40
Nezperce	34	Mar 31-58	Jun 28-34	Sep 7-39	Nov 12-44	Apr 27-57	Jul 3-62	Jul 28-49	Oct 26-63
Pierce R. S.	21	Apr 22-41	Jun 5-43	Aug 16-35	Oct 16-42	Jun 1-37	Jul 9-35	Jul 18-53	Oct 5-40
Porthill	61	Mar 26-34	May 26-18	Sep 3-29	Nov 9-07	Apr 8-36	Jun 28-46	Aug 24-10	Oct 14-38
Potlatch	39	Mar 23-43	Jun 12-19	Aug 29-37	Nov 12-44	Apr 30-58	Jul 2-55	Jul 29-17	Oct 19-63
Priest River Exp. Sta.	51	Apr 16-40	Jun 13-52	Aug 28-18	Nov 4-40	May 14-58	Jul 6-52	Jul 11-15	Oct 7-40
Riggins R.S.	21	Mar 3-46	Apr 29-57	Oct 1-50	Dec 23-62	Mar 23-46	May 31-55	Sep 28-57	Nov 17-62
St. Maries	44	Mar 13-40	May 30-51	Sep 7-29	Dec 23-62	Apr 6-36	Jun 20-60	Aug 16-35	Nov 4-40
Sandpoint Exp. Sta.	53	Mar 22-40	Jun 7-19	Aug 30-24	Nov 15-14	Apr 23-57	Jun 20-16	Aug 16-35	Oct 22-40
Wallace	49	Mar 13-40	Jun 25-51	Sep 7-29	Nov 5-40	Apr 3-34	Jul 6-20	Jul 24-53	Nov 4-40
Southwest									
Arrowrock Dam	34	Mar 8-34	May 12-43	Sep 26-34	Nov 19-41	Apr 4-34	May 23-44	Sep 15-36	Oct 28-40
Boise A. P.	26	Mar 16-58	May 22-60	Sep 9-46	Nov 15-44	Apr 19-41	May 31-55	Sep 9-46	Nov 11-44
Caldwell	57	Mar 22-40	May 25-18	Sep 14-15	Nov 6-14	Apr 10-36	Jun 11-17	Aug 24-65	Oct 24-63
Cambridge	31	Mar 22-40	May 29-54	Aug 28-60	Nov 4-40	Apr 22-41	Jul 2-55	Aug 3-56	Oct 17-38
Cascade 1 NW	22	Apr 25-63	Jul 1-55	Jul 13-43	Oct 26-63	May 14-58	Jul 9-59	Jul 13-43	Oct 16-63
Council	27	Mar 24-34	May 27-54	Sep 15-36	Nov 12-44	Apr 4-34	Jun 10-59	Sep 9-62	Oct 28-40
Deer Flat Dam	26	Mar 20-40	May 23-44	Sep 13-60	Nov 19-53	Mar 22-40	May 23-44	Sep 13-60	Oct 28-40
Emmett 2 E	29	Mar 12-40	May 22-60	Sep 22-61	Nov 21-38	Apr 8-32	Jun 17-49	Aug 28-60	Nov 9-50
Grand View	29	Mar 23-40	May 25-39	Sep 12-31	Nov 1-59	Apr 11-52	May 27-54	Sep 9-62	Oct 20-63
Idaho City	32	Apr 28-57	Jul 2-55	Aug 2-37	Oct 24-63	May 14-58	Jul 8-59	Jul 12-50	Oct 17-63
Kuna 2 NNE	28	Mar 22-40	May 23-44	Sep 15-36	Nov 9-31	Apr 4-34	May 31-55	Sep 15-36	Oct 28-40
Lowman	19	Apr 28-57	Jun 30-49	Aug 16-35	Oct 5-40	May 20-48	Jul 9-59	Jul 12-50	Sep 8-34
McCall	33	Apr 30-47	Jul 3-55	Aug 9-31	Oct 25-63	May 16-58	Jul 8-59	Jul 13-43	Sep 24-63
Mountain Home	30	Apr 3-34	May 23-44	Sep 15-36	Oct 30-59	Apr 18-34	Jun 27-49	Aug 29-60	Oct 26-63
Nampa 2 NW	21	Mar 27-57	May 23-66	Sep 17-65	Nov 11-62	Apr 12-47	Jun 13-53	Sep 17-65	Oct 26-63
New Meadows R. S.	28	Apr 28-57	Jul 1-49	Jul 22-54	Oct 6-40	May 21-41	Jul 9-56	Jul 12-50	Sep 3-58
Ola 4 S	11	Apr 6-58	May 28-54	Sep 21-58	Oct 21-59	Apr 17-52	Jun 17-57	Aug 27-60	Sep 29-59
Parma Exp. Sta.	40	Mar 22-40	May 23-44	Sep 15-36	Nov 4-62	Apr 10-36	Jun 4-62	Sep 7-27	Oct 18-38
Payette	33	Mar 21-40	May 23-44	Sep 15-36	Nov 6-62	Mar 22-40	Jun 4-62	Sep 15-44	Oct 26-63
Weiser 2 SE	33	Mar 23-40	May 23-60	Sep 26-34	Nov 6-62	Apr 4-34	Jun 4-62	Sep 10-45	Oct 29-40

Table 4. Extreme occurrences of temperature thresholds. (cont.)

Station	Number of Years	28° Fahrenheit				32° Fahrenheit			
		Spring		Fall		Spring		Fall	
		Earliest	Latest	Earliest	Latest	Earliest	Latest	Earliest	Latest
South Central									
Bliss	31	Apr 5-47	Jun 19-62	Sep 9-45	Oct 26-53	Apr 24-63	Jun 24-37	Aug 2-37	Oct 24-63
Buhl	27	Mar 19-40	May 19-31	Sep 15-36	Nov 18-53	Apr 4-34	May 30-37	Sep 11-31	Nov 7-53
Burley	30	Mar 19-40	May 11-43	Sep 15-36	Nov 1-53	Apr 18-34	Jun 2-54	Sep 11-31	Oct 24-47
Fairfield R.S.	14	Apr 25-63	Jul 8-59	Aug 26-60	Oct 13-63	May 19-61	Jul 8-59	Jul 22-54	Oct 10-63
Hailey	32	Apr 22-52	Jun 30-35	Aug 26-60	Oct 24-63	May 12-63	Jul 7-55	Aug 17-54	Oct 20-63
Hazelton	29	Apr 3-34	May 25-53	Sep 15-36	Nov 5-40	Apr 18-34	Jun 6-54	Sep 10-45	Oct 17-38
Hill City	33	Apr 25-37	Jul 8-59	Aug 24-62	Oct 18-38	May 24-41	Jul 9-59	Jul 13-43	Sep 12-36
Hollister	30	Apr 11-52	Jun 15-45	Sep 8-41	Nov 9-50	Apr 22-52	Jun 18-44	Aug 29-32	Oct 18-48
Jerome	29	Mar 25-41	May 28-54	Sep 15-36	Nov 9-31	Apr 17-52	May 30-37	Sep 12-49	Oct 17-38
Minidoka Dam	16	Mar 27-57	May 6-64	Oct 1-54	Oct 29-55	Apr 22-63	Jun 2-54	Sep 21-57	Oct 24-63
Oakley	27	Apr 9-49	Jun 2-54	Sep 9-45	Nov 9-31	Apr 24-63	Jun 17-49	Aug 30-32	Oct 24-63
Richfield	25	Apr 12-52	Jun 15-45	Aug 29-37	Oct 29-40	May 5-57	Jul 3-44	Aug 28-42	Oct 12-52
Rupert	29	Apr 4-34	May 13-53	Sep 10-32	Nov 5-40	Apr 16-34	Jun 2-54	Sep 10-32	Oct 17-38
Shoshone	28	Apr 12-52	Jun 15-45	Sep 15-39	Oct 25-53	Apr 16-52	Jun 25-37	Aug 23-60	Oct 14-52
Twin Falls 2 NNE	58	Mar 31-17	Jun 5-14	Sep 13-21	Nov 4-40	Mar 31-17	Jun 21-16	Jul 14-13	Oct 20-63
Eastern									
Aberdeen Exp. Sta.	33	Apr 15-34	Jun 11-47	Sep 8-41	Oct 17-48	Apr 29-57	Jun 30-63	Aug 28-60	Oct 17-38
Ashton 1 S	31	Apr 17-34	Jun 27-49	Aug 25-60	Nov 5-40	May 12-58	Jul 8-59	Jul 13-43	Oct 13-38
Blackfoot	27	Apr 2-49	May 27-32	Sep 8-62	Oct 26-42	Apr 22-52	Jun 10-38	Sep 8-62	Oct 17-38
Challis	32	Apr 9-36	Jun 7-54	Aug 31-32	Nov 3-40	Apr 26-47	Jul 2-55	Sep 28-60	Oct 16-38
Driggs	29	Apr 25-63	Jun 30-47	Aug 20-39	Oct 24-63	May 24-48	Jul 8-59	Jul 10-46	Oct 10-63
Dubois Exp. Sta.	37	Apr 3-34	Jun 21-60	Jul 10-61	Nov 4-40	May 8-61	Jul 9-29	Jul 10-61	Oct 17-38
Fort Hall	30	Mar 26-34	Jun 4-53	Sep 1-62	Nov 4-40	Apr 29-57	Jun 30-47	Aug 17-61	Oct 17-38
Idaho Falls A. P.	34	Apr 2-30	Jun 2-43	Sep 9-62	Oct 27-39	Apr 29-63	Jun 8-54	Aug 29-60	Oct 17-38
Irwin 2 SE	29	Apr 26-47	Jun 10-38	Sep 5-56	Oct 18-38	May 7-58	Jul 8-59	Jul 13-43	Sep 28-40
Island Park Dam	28	May 7-40	Jul 8-59	Jul 13-43	Oct 1-40	May 23-48	Jul 8-59	Jul 12-51	Sep 13-55
Mackay R. S.	28	Apr 3-34	Jun 27-49	Sep 8-62	Oct 14-52	May 7-40	Jun 27-49	Aug 11-47	Oct 10-38
Malad	33	Apr 3-34	May 28-54	Sep 9-62	Nov 7-53	Apr 17-49	Jun 21-60	Aug 29-32	Oct 24-63
Malad A. P.	20	Apr 16-49	Jun 21-60	Sep 9-62	Oct 24-63	Apr 27-49	Jun 30-55	Aug 23-60	Oct 14-63
May R. S.	25	Apr 9-36	Jul 5-55	Aug 27-54	Oct 6-40	May 11-61	Jul 8-59	Jul 19-62	Oct 1-40
McCammon	15	Apr 12-52	Jun 21-60	Sep 9-62	Oct 24-63	Apr 30-63	Jun 30-55	Aug 6-50	Oct 10-63
Montpelier R. S.	31	Apr 29-57	Jun 30-55	Aug 23-60	Oct 18-38	May 15-33	Jul 8-44	Jul 21-49	Sep 27-38
Pocatello A. P.	25	Mar 30-42	May 21-59	Sep 13-49	Nov 15-44	Apr 17-39	Jun 7-62	Sep 9-62	Nov 4-40
Preston 2 SE	30	Apr 6-34	Jun 21-60	Sep 15-47	Nov 4-40	Apr 17-49	Jun 30-47	Aug 31-43	Oct 17-38
Salmon	32	Apr 23-52	Jul 2-55	Aug 28-60	Oct 24-63	May 13-61	Jul 2-55	Jul 30-59	Oct 16-63
Spencer R. S.	21	May 1-58	Jul 7-59	Aug 23-47	Oct 17-38	May 18-58	Jul 8-59	Jul 11-59	Sep 14-58
Sugar	25	Apr 1[illegible]-34	Jun 27-49	Aug 27-60	Oct 18-38	Apr 30-57	Jul 8-59	Jul 13-43	Oct 18-38
Tetonia Exp. Sta.	10	May 2-58	Jun 30-63	Aug 28-60	Oct 21-63	May 31-61	Jul 8-59	Jul 22-54	Oct 10-63