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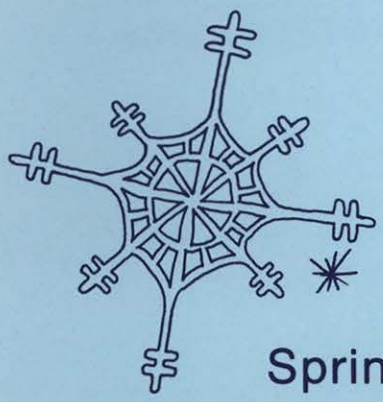
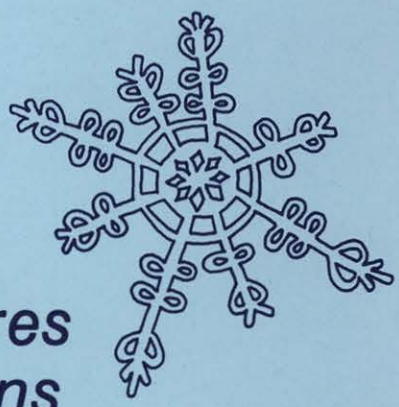
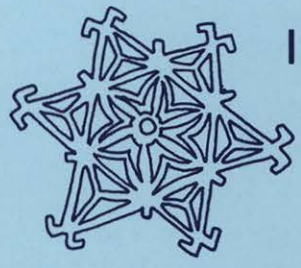


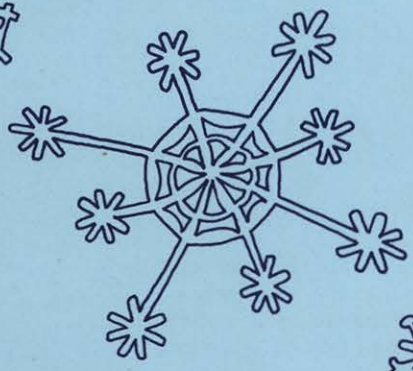


Spring and Fall

Freezing Temperatures And Growing Seasons

In Idaho





Dale O. Everson
Maurice Faubion
Deborah E. Amos

Bulletin 494
Revised January 1978

Agricultural Experiment Station
UNIVERSITY OF IDAHO
College of Agriculture

Contents

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 Sherrie Lin and Nancy Greenwell of the University of Idaho Department of Agricultural Economics and Norman Walcott of the National Weather Service, Boise.

This research has been supported in part by Regional Project W148.

The Authors

Dale O. Everson is Statistician, University of Idaho Agricultural Experiment Station. Deborah E. Amos is Programmer-Analyst, Department of Agricultural Economics, University of Idaho. Maurice Faubion is Advisory Agricultural Meteorologist, National Weather Service, Twin Falls, ID.

Published and distributed by the Idaho Agriculture Experiment Station
R. J. Miller, Director

University of Idaho College of Agriculture
Moscow 83843

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Spring and Fall

Freezing Temperatures and Growing Seasons

in Idaho

Dale O. Everson, Maurice Faubion, Deborah E. Amos

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.

Objective

The objective of this bulletin is to present spring and fall temperatures in such a manner that will aid planning for crop selection. 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.

Sources of Data

Temperature data used in this study are from thermometers exposed in louvered shelters, generally about 5 feet above ground. Wherever possible the shelter is placed over sod in an open, well-ventilated location. Assuming free circulation of the air through the shelter, the resulting minimum temperatures may be considered free-air unaffected by direct loss of heat from the thermometer to the open sky. Ideal conditions 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 the presence of substantial variance, however. Temperatures were recorded at both 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 National Weather Service because of variations among observers in determining a killing frost. Lack of standard objective criteria in addition to wide variations of resistance to injury, even within the same species and varieties of plants, have made this term obsolete.

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). These are:

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

Moderate freeze — the free-air temperature ranges between 24 and 28 degrees F. Most plants sustain some damage. Heavy damage occurs on fruit blossoms and tender and semi-hardy plants, particularly in lowlands.

Severe freeze — the free-air temperature is less than 24 degrees F. All plants have heavy damage.

Types of Freezes

Radiation freezes occur when the general air mass over an area is cool, the winds are light and the sky is clear or nearly so. Under such conditions, the soil surface cools rapidly as heat is radiated outward. 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 throughout a layer of some depth. A strong breeze mixes the cooler air with warmer air from above and may prevent a decrease in temperature to the freezing point. If this heat loss by outgoing radiation, or inversion, continues throughout the night, the minimum temperature will be reached near sunrise. If a layer of clouds interrupts this outward flow of heat, the temperature will often be prevented from falling to the freezing point.

Advection freezes occur when a mass of air whose temperature is below freezing moves over an area. Under this condition, the temperature steadily decreases with an increase in 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. If skies are clear, the radiational cooling further decreases the temperature and results in a severe freeze.

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 of 80 acres, or even in a single field of a smaller area, 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 plants prevent 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 are 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 replaces the warmer air in the valley or depression. Slopes facing toward the north or east will begin cooling earlier than slopes toward the south or west because of the angle of exposure to the sun.

Elevation is another factor influencing temperatures. Temperature decreases an average of 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, thus contributing to the wide range in average temperature between agricultural areas.

Valleys at higher elevations experience a wide diurnal range of temperatures. Since air mass at these elevations is less, the incidence of solar radiation is higher. 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, freezing temperatures can occur 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 spring or fall nights. Depending upon the strength of the wind and the size of the body of water, air moving off the warmer water can prevent freezing some distance from the shore.

One illustration of the effect of a body of water on the growing season is at the U-I Research and Extension Center at Aberdeen. Located on the west side of American Falls Reservoir, the center has a growing season of only 105 days, but Pocatello Airport several miles east of the reservoir in an area of predominantly westerly winds has an average season of 127 days.

Low-Temperature Injury to Plants

Low temperature can injure plants two ways, 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 temperature during the plant dormancy period. One example of winter injury is plant dessication which occurs on such crops as winter wheat that has no protective snow cover. 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 contains no data on winter temperature extremes. It deals primarily with spring and fall freeze injury to growing crops.

Protection Against Injury

Site selection is the most important factor for preventing freeze injury. Since cold air flows downward and collects in pockets or in low areas, planting sites for crops vulnerable to below freezing temperatures 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.

Another important factor in protecting against injury is plant variety. Varieties can be selected that are known to be hardy in the area where they will be planted and that will have a reasonable chance for growing to maturity within the expected frost-free season.

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 the ground around many ornamental shrubs and flowers. They give excellent frost protection while plants are covered. The following factors have been found to affect soil surface temperatures at night:

Factors which favor higher soil surface temperatures

1. Open exposure to solar radiation during the day.
2. Cloud cover at 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 small plants. Heaters, wind machines and irrigation water can be used to protect tree fruits from spring frosts (4). Sprinkler irrigation is also used at times to protect row crops against freezing. Overhead sprinklers have been used in orchards to delay the bloom by evaporative cooling until after normal spring freeze dates. If crops are irrigated 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 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 87 stations with all available records since 1925 are shown in Fig. 1. General descriptions are included in Table 1. Many stations have been moved during the period of record. Information on station history may be obtained by contacting the National Weather Service Forecast Office, 3905 Vista Ave., Boise, ID 83705.

Using Freeze Risk Tables

Spring and fall "freeze risk" calculations are presented in Table 2 for the temperature thresholds of 20, 24, 28 and 32 degrees F. The 50 percent probability columns are average dates for each temperature threshold. As an example, at the Boise airport (A.P.), the average date of last 32-degree reading in the fall is October 8.

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 14, 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 14. 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 put out his tomato plants until May 21. The gardener could put out his tomato plants on April 21 but would be taking a 90 percent risk of freeze occurring.

The table does not consider the chance of low temperatures on 2 or more successive days.

Length of Growing Season

The length of growing season for each of the temperature thresholds is presented in Table 3. These figures represent 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.

Growers should be reminded 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 (8) have shown that freeze dates follow a normal frequency distribution. Average dates for different thresholds were computed for each station, and are the dates of 50 percent probability. The number of years of record per station varied from 10 to 50 years because of lack of continuous records after 1925.

Of the 87 stations used, 25 long-term stations with an average of 38 years of record were used to determine if either the means or pooled standard deviations of long- and short-term stations would be comparable. The last 13 years of record were compared to the entire station history with the results shown in Table 5. There is a tendency for shorter growing seasons to be computed for stations with shorter records. However, a difference of only 1 day was noted for 32 and 20 degrees, and at most, a difference of 3 days was noted for the 24 and 28 degree thresholds. These biases are relatively small when compared to station mean differences.

The variability of records, as expressed by standard deviations, shows remarkable agreement between short and long-term records (Table 5). These statistics may be kept in mind when setting confidence intervals on growing season lengths found in Table 3.

Individual station standard deviations multiplied by standard normal deviates were used to compute probabilities of spring and fall freezing thresholds as shown in Table 2. Pooled standard deviations for temperature thresholds were reported earlier (7) as 15.8 days for the spring and 14.9 days for the fall thresholds. These values compared to 19.3 days for spring and 17.5 days for fall thresholds used in Washington by Phillips et al. (5).

A prediction equation for determining length of season at 32 degrees (Y) using station elevation X as the independent variable is:

$$Y = 173.4 - .0155X$$

This equation only accounted for 35% of the variation of the length of season. However, the best estimate for the 32 degree growing season was found to be elevation, with a decrease of 15.5 days for every 1,000 feet increase in elevation. Much deviation from this general rule will result, and the best available information should be found in the tables for a specific location. However, the relatively large standard deviations of the spring and fall freezing dates makes pinpointing the exact season length for any specific year very difficult.

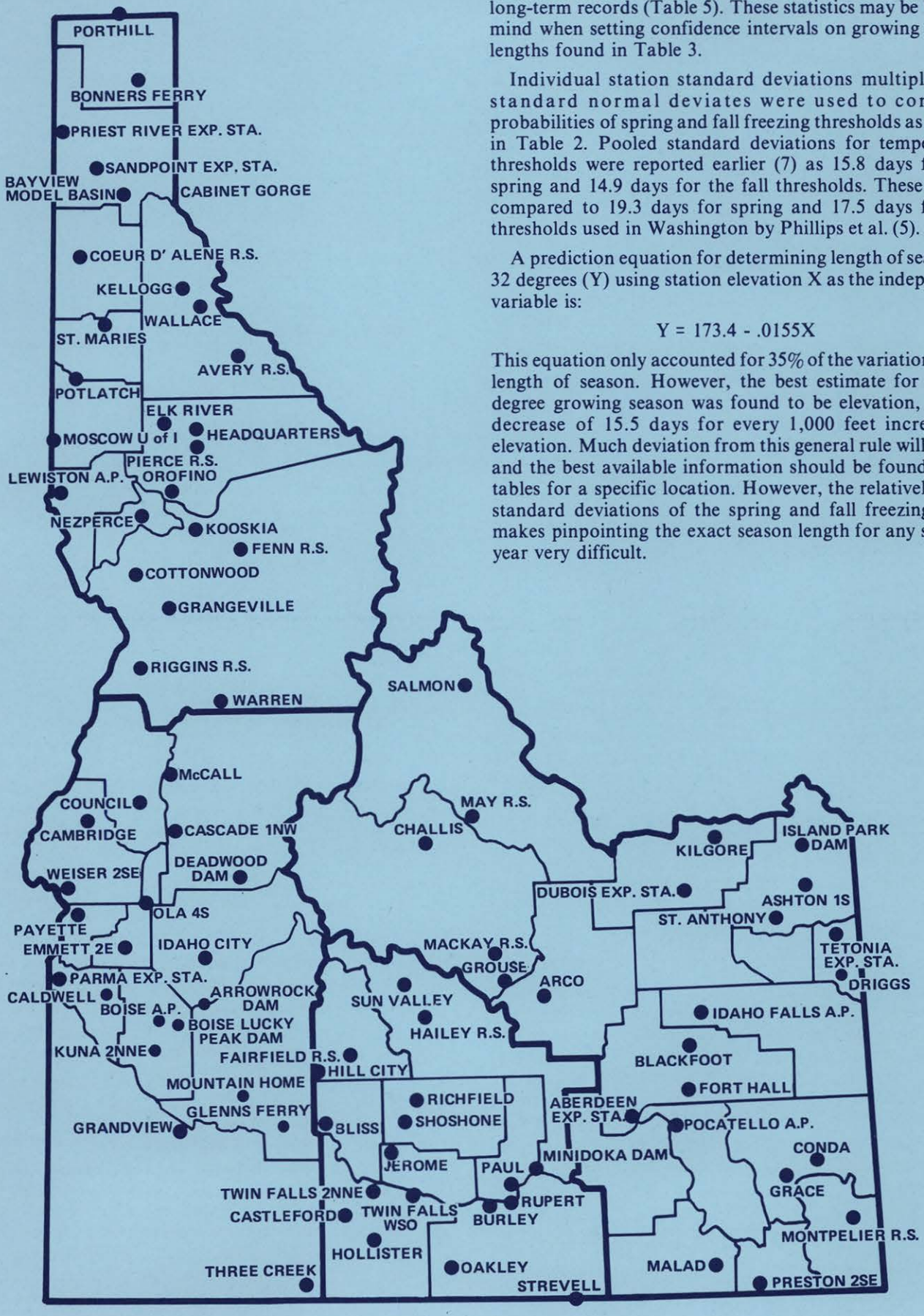

Table 1. Index and description of stations.

Station	County	Elevation (ft.)	Remarks
NORTH			
Avery R. S.	Shoshone	2492	At junction of two narrow canyons. Surrounding mountains heavily timbered.
Bayview Model Basin	Kootenai	2075	On point of land extending into lake. Representative of lake climate.
Bonners Ferry	Boundary	1810	Shelter on lawn at southwest edge of city.
Cabinet Gorge	Bonner	2257	On bluff overlooking dam. Exposure fair.
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.
Elk River	Clearwater	2918	Mountainous terrain. Over sod. Fair 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.
Headquarters	Clearwater	3138	Mountainous terrain. Exposure fair.
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.
Orofino	Clearwater	1027	Mountainous terrain. Exposure fair over lawn.
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.
Warren	Idaho	5907	Mountainous terrain. Over lawn. Exposure fair.
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.
Boise Lucky Peak Dam	Ada	2840	At base of large dam. Poor 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.
Deadwood Dam	Valley	5375	In river valley in mountainous terrain. Exposure fair.
Emmett 2E	Gem	2500	Over bare ground in orchard area. Good exposure.
Glenns Ferry	Elmore	2510	Over sod. 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.
McCall	Valley	5025	Over bare ground. Surrounded by sparse timber. Marginal exposure.
Mountain Home	Elmore	3180	Over bare ground. Area level. Good exposure.
Ola 4S	Gem	2962	Over sod in narrow shallow valley. Exposure good.
Parma Exp. Sta.	Canyon	2224	Over sod. Good exposure.
Payette	Payette	2110	Over bare ground.
Three Creek	Owyhee	5460	Over native vegetation. Exposure fair.
Weiser 2SE	Washington	2120	Over sod. No obstructions. Good exposure.

Station	County	Elevation (ft.)	Remarks
SOUTH CENTRAL			
Bliss	Gooding	3265	Over sod. Good exposure.
Burley	Cassia	4180	At rear of office building, over gravel, close to pavement. Exposure poor.
Castleford	Twin Falls	3825	Several locations. Exposure fair to good.
Fairfield R.S.	Camas	5065	Over bare ground. Exposure good.
Hailey R.S.	Blaine	5328	Over sod in level area. 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.
Paul	Minidoka	4210	Over gravel near parking area. Exposure poor.
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.
Strevell	Cassia	5290	On mountain pass over native vegetation. Exposure fair.
Sun Valley	Blaine	5980	Several locations in Sun Valley complex. Exposure fair.
Twin Falls 2NNE	Twin Falls	3770	Over bare ground. Exposure good.
Twin Falls WSO	Twin Falls	3960	Over sod. Excellent exposure.
EAST			
Aberdeen Exp. Sta.	Bingham	4400	Over bare ground near sod. Good exposure.
American Falls	Power	4318	Near large dam. Exposure poor.
Arco	Butte	5328	Over lawn. Exposure good.
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.
Conda	Caribou	6200	Over lawn near buildings. Exposure fair.
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.
Grace	Caribou	5550	Near dam in valley. Poor exposure.
Grouse	Custer	6100	Mountain valley. Over lawn. Exposure fair to good.
Idaho Falls A.P.	Bonneville	4744	Roof exposure during most of the period.
Island Park Dam	Fremont	6300	Over sod in large clearing of lodge pole pine. Exposure good.
Kilgore	Clark	6150	Over gravel. 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.
May R.S.	Lemhi	5110	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.
St. Anthony	Fremont	4950	Over lawn. Exposure good.
Salmon	Lemhi	3949	Over lawn in town. Exposure good to fair.
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.*					*Percent probability of indicated temperature or lower occurring on or after date in fall.*				
		90%	75%	50%	25%	10%	10%	25%	50%	75%	90%
NORTH											
Avery	20	Feb 21	Mar 3	Mar 16	Mar 29	Apr 10	Oct 23	Nov 3	Nov 15	Nov 27	Dec 8
(38 years)	24	Mar 10	Mar 21	Apr 2	Apr 14	Apr 24	Oct 3	Oct 15	Oct 29	Nov 12	Nov 24
	28	Apr 7	Apr 21	May 6	May 22	Jun 5	Sep 17	Sep 29	Oct 13	Oct 26	Nov 8
	32	May 4	May 17	May 31	Jun 14	Jun 26	Aug 23	Sep 5	Sep 20	Oct 4	Oct 17
Bayview Model Basin	20	Mar 13	Mar 21	Mar 30	Apr 8	Apr 16	Oct 17	Oct 29	Nov 12	Nov 25	Dec 7
(13 years)	24	Mar 27	Apr 3	Apr 11	Apr 20	Apr 27	Oct 5	Oct 15	Oct 26	Nov 6	Nov 16
	28	Apr 25	May 1	May 8	May 15	May 21	Sep 12	Sep 20	Sep 30	Oct 9	Oct 18
	32	May 2	May 13	May 26	Jun 7	Jun 18	Aug 29	Sep 5	Sep 13	Sep 21	Sep 28
Bonners Ferry	20	Feb 28	Mar 8	Mar 19	Mar 30	Apr 8	Oct 6	Oct 22	Nov 9	Nov 27	Dec 13
(35 years)	24	Mar 14	Mar 25	Apr 5	Apr 17	Apr 27	Sep 23	Oct 6	Oct 20	Nov 3	Nov 16
	28	Apr 9	Apr 18	Apr 27	May 7	May 15	Sep 10	Sep 23	Oct 8	Oct 22	Nov 4
	32	Apr 26	May 4	May 12	May 20	May 27	Aug 30	Sep 8	Sep 20	Oct 1	Oct 11
Cabinet Gorge	20	Feb 6	Mar 6	Mar 16	Mar 27	Apr 5	Oct 29	Nov 8	Nov 19	Nov 29	Dec 9
(16 years)	24	Mar 18	Mar 26	Apr 4	Apr 12	Apr 20	Oct 14	Oct 23	Nov 1	Nov 11	Nov 19
	28	Apr 9	Apr 17	Apr 26	May 5	May 13	Sep 19	Sep 28	Oct 7	Oct 16	Oct 25
	32	May 1	May 8	May 15	May 23	May 30	Sep 10	Sep 17	Sep 24	Oct 1	Oct 8
Coeur d'Alene	20	Feb 14	Mar 1	Mar 21	Apr 9	Apr 26	Oct 16	Oct 31	Nov 17	Dec 4	Dec 19
(49 years)	24	Mar 13	Mar 27	Apr 11	Apr 26	May 10	Oct 6	Oct 19	Nov 3	Nov 17	Dec 1
	28	Apr 2	Apr 14	Apr 26	May 9	May 20	Sep 21	Oct 2	Oct 14	Oct 26	Nov 6
	32	Apr 26	May 5	May 15	May 25	Jun 3	Sep 10	Sep 17	Sep 25	Oct 3	Oct 11
Cottonwood	20	Mar 9	Mar 18	Mar 27	Apr 6	Apr 14	Oct 15	Oct 25	Nov 6	Nov 17	Nov 28
(28 years)	24	Mar 24	Apr 2	Apr 12	Apr 21	Apr 30	Sep 27	Oct 6	Oct 17	Oct 28	Nov 7
	28	Apr 15	Apr 25	May 6	May 18	May 28	Sep 9	Sep 18	Sep 29	Oct 10	Oct 19
	32	May 12	May 21	May 30	Jun 9	Jun 18	Aug 31	Sep 7	Sep 14	Sep 22	Sep 28
Elk River	20	Mar 16	Mar 25	Apr 4	Apr 14	Apr 23	Oct 11	Oct 21	Nov 1	Nov 12	Nov 22
(13 years)	24	Apr 7	Apr 14	Apr 22	Apr 30	May 7	Sep 15	Sep 26	Oct 8	Oct 20	Oct 30
	28	May 5	May 11	May 18	May 25	May 31	Sep 1	Sep 11	Sep 21	Oct 1	Oct 10
	32	May 19	May 30	Jun 11	Jun 24	Jul 5	Aug 7	Aug 18	Aug 31	Sep 12	Sep 23
Fenn R.S.	20	Jan 28	Feb 12	Mar 1	Mar 16	Mar 31	Nov 6	Nov 18	Dec 2	Dec 16	Dec 28
(41 years)	24	Feb 19	Mar 3	Mar 18	Apr 2	Apr 16	Oct 21	Nov 1	Nov 13	Nov 25	Dec 6
	28	Mar 19	Mar 29	Apr 9	Apr 19	Apr 29	Oct 7	Oct 17	Oct 28	Nov 8	Nov 18
	32	Apr 17	Apr 24	May 3	May 12	May 20	Sep 16	Sep 27	Oct 10	Oct 22	Nov 3
Grangeville	20	Feb 25	Mar 9	Mar 23	Apr 7	Apr 20	Oct 15	Oct 26	Nov 7	Nov 19	Nov 30
(45 years)	24	Mar 19	Mar 29	Apr 8	Apr 19	Apr 28	Oct 2	Oct 13	Oct 25	Nov 6	Nov 17
	28	Apr 9	Apr 18	Apr 28	May 8	May 17	Sep 16	Sep 26	Oct 6	Oct 17	Oct 27
	32	Apr 29	May 7	May 17	May 26	Jun 3	Sep 5	Sep 13	Sep 21	Sep 30	Oct 8
Headquarters	20	Mar 18	Mar 27	Apr 5	Apr 15	Apr 24	Oct 11	Oct 21	Nov 1	Nov 12	Nov 22
(13 years)	24	Apr 9	Apr 16	Apr 22	Apr 29	May 5	Sep 14	Sep 25	Oct 7	Oct 18	Oct 29
	28	Apr 30	May 10	May 20	May 31	Jun 9	Sep 4	Sep 12	Sep 21	Sep 30	Oct 8
	32	May 23	Jun 3	Jun 14	Jun 26	Jul 6	Aug 5	Aug 18	Sep 2	Sep 17	Sep 30
Kellogg	20	Feb 18	Mar 1	Mar 15	Mar 30	Apr 12	Oct 14	Oct 28	Nov 13	Nov 28	Dec 12
(48 years)	24	Mar 10	Mar 20	Apr 1	Apr 12	Apr 23	Oct 2	Oct 14	Oct 27	Nov 9	Nov 20
	28	Apr 2	Apr 11	Apr 21	May 1	May 10	Sep 15	Sep 28	Oct 11	Oct 25	Nov 6
	32	Apr 28	May 6	May 14	May 22	May 29	Sep 4	Sep 13	Sep 24	Oct 4	Oct 13
Kooskia	20	Feb 1	Feb 16	Mar 2	Mar 18	Apr 2	Oct 23	Nov 4	Nov 18	Dec 1	Dec 13
(50 years)	24	Mar 4	Mar 15	Mar 27	Apr 8	Apr 18	Oct 9	Oct 20	Nov 2	Nov 15	Nov 26
	28	Mar 27	Apr 5	Apr 14	Apr 23	May 1	Sep 20	Oct 2	Oct 14	Oct 27	Nov 7
	32	Apr 20	Apr 28	May 6	May 15	May 23	Sep 10	Sep 18	Sep 26	Oct 4	Oct 12
Lewiston A.P.	20	Jan 9	Jan 28	Feb 17	Mar 7	Mar 26	Nov 8	Nov 21	Dec 5	Dec 19	Dec 31
(26 years)	24	Feb 4	Feb 20	Mar 7	Mar 24	Apr 9	Oct 22	Nov 6	Nov 23	Dec 10	Dec 25
	28	Mar 13	Mar 23	Apr 2	Apr 13	Apr 22	Oct 10	Oct 19	Oct 29	Nov 7	Nov 16
	32	Apr 2	Apr 11	Apr 22	May 2	May 11	Sep 23	Oct 3	Oct 14	Oct 24	Nov 3
Moscow U of I	20	Jan 30	Feb 15	Mar 4	Mar 23	Apr 9	Oct 17	Oct 31	Nov 16	Dec 2	Dec 16
(49 years)	24	Feb 16	Mar 1	Mar 19	Apr 5	Apr 20	Oct 3	Oct 16	Oct 31	Nov 15	Nov 29
	28	Mar 21	Apr 3	Apr 18	May 3	May 16	Sep 17	Sep 29	Oct 12	Oct 24	Nov 5
	32	Apr 21	May 2	May 13	May 25	Jun 4	Sep 4	Sep 14	Sep 25	Oct 6	Oct 17
Nezperce	20	Mar 2	Mar 13	Mar 25	Apr 5	Apr 16	Oct 15	Oct 26	Nov 8	Nov 21	Dec 3
(21 years)	24	Mar 24	Apr 2	Apr 11	Apr 20	Apr 29	Oct 1	Oct 12	Oct 24	Nov 5	Nov 16
	28	Apr 12	Apr 22	May 3	May 14	May 24	Sep 10	Sep 21	Oct 2	Oct 13	Oct 23
	32	Apr 27	May 8	May 19	May 31	Jun 11	Sep 3	Sep 12	Sep 21	Oct 1	Oct 9

Table 2. Continued.

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 after date in fall.				
		90%	75%	50%	25%	10%	10%	25%	50%	75%	90%
NORTH											
Orofino	20	Jan 19	Feb 2	Feb 17	Mar 3	Mar 17	Nov 15	Nov 26	Dec 9	Dec 22	Dec 31
(13 years)	24	Feb 16	Feb 28	Mar 11	Mar 24	Apr 5	Oct 21	Nov 4	Nov 18	Dec 3	Dec 16
	28	Mar 19	Mar 27	Apr 6	Apr 15	Apr 24	Sep 29	Oct 10	Oct 22	Nov 3	Nov 14
	32	Apr 16	Apr 23	May 1	May 9	May 17	Sep 15	Sep 25	Oct 5	Oct 16	Oct 25
Pierce R.S.	20	Mar 25	Mar 31	Apr 7	Apr 13	Apr 19	Oct 6	Oct 16	Oct 27	Nov 7	Nov 16
(21 years)	24	Apr 7	Apr 14	Apr 22	May 1	May 8	Sep 22	Oct 2	Oct 13	Oct 24	Nov 3
	28	Apr 27	May 6	May 15	May 25	Jun 2	Aug 31	Sep 10	Sep 20	Sep 30	Oct 9
	32	May 12	May 25	Jun 8	Jun 22	Jul 4	Jul 28	Aug 10	Aug 24	Sep 8	Sep 21
Porthill	20	Feb 27	Mar 8	Mar 19	Mar 31	Apr 11	Oct 17	Oct 27	Nov 8	Nov 20	Nov 30
(49 years)	24	Mar 24	Mar 31	Apr 8	Apr 16	Apr 23	Oct 1	Oct 10	Oct 21	Oct 31	Nov 9
	28	Apr 12	Apr 20	Apr 28	May 6	May 14	Sep 13	Sep 20	Sep 27	Oct 5	Oct 11
	32	Apr 28	May 6	May 16	May 26	Jun 3	Sep 5	Sep 12	Sep 19	Sep 26	Oct 2
Potlatch	20	Feb 15	Mar 1	Mar 15	Mar 30	Apr 13	Oct 3	Oct 17	Nov 1	Nov 16	Nov 29
(40 years)	24	Mar 13	Mar 26	Apr 9	Apr 23	May 6	Sep 19	Oct 2	Oct 17	Nov 1	Nov 14
	28	Apr 9	Apr 21	May 4	May 17	May 29	Sep 2	Sep 14	Sep 28	Oct 11	Oct 23
	32	May 8	May 20	Jun 1	Jun 14	Jun 25	Aug 5	Aug 19	Sep 5	Sep 21	Oct 6
Priest River Exp. Sta.	20	Mar 18	Mar 26	Apr 3	Apr 12	Apr 20	Oct 9	Oct 20	Nov 2	Nov 14	Nov 26
(48 years)	24	Apr 2	Apr 10	Apr 18	Apr 27	May 4	Sep 21	Sep 30	Oct 11	Oct 22	Oct 31
	28	Apr 27	May 5	May 13	May 21	May 29	Sep 8	Sep 14	Sep 21	Sep 27	Oct 3
	32	May 13	May 23	Jun 3	Jun 14	Jun 24	Aug 12	Aug 22	Sep 2	Sep 13	Sep 23
Riggins	20	Jan 15	Jan 31	Feb 18	Mar 7	Mar 23	Nov 14	Nov 26	Dec 9	Dec 22	Dec 31
(31 years)	24	Feb 1	Feb 16	Mar 2	Mar 18	Apr 2	Oct 28	Nov 10	Nov 23	Dec 7	Dec 20
	28	Mar 12	Mar 21	Mar 31	Apr 9	Apr 18	Oct 14	Oct 25	Nov 6	Nov 19	Nov 30
	32	Mar 31	Apr 10	Apr 22	May 3	May 13	Sep 29	Oct 9	Oct 19	Oct 30	Nov 9
St. Maries	20	Feb 11	Feb 25	Mar 11	Mar 26	Apr 9	Oct 16	Oct 29	Nov 13	Nov 28	Dec 11
(50 years)	24	Mar 11	Mar 20	Mar 30	Apr 9	Apr 18	Sep 30	Oct 12	Oct 26	Nov 8	Nov 20
	28	Apr 4	Apr 13	Apr 23	May 4	May 13	Sep 13	Sep 24	Oct 5	Oct 17	Oct 27
	32	Apr 28	May 7	May 16	May 26	Jun 3	Sep 2	Sep 10	Sep 19	Sep 28	Oct 6
Sandpoint	20	Mar 1	Mar 9	Mar 19	Mar 28	Apr 5	Oct 11	Oct 23	Nov 6	Nov 20	Dec 2
(50 years)	24	Mar 19	Mar 27	Apr 5	Apr 14	Apr 22	Sep 25	Oct 7	Oct 21	Nov 4	Nov 16
	28	Apr 12	Apr 22	May 2	May 13	May 23	Sep 13	Sep 23	Oct 3	Oct 14	Oct 24
	32	May 3	May 10	May 19	May 27	Jun 4	Aug 27	Sep 4	Sep 13	Sep 22	Oct 1
Wallace	20	Mar 1	Mar 11	Mar 22	Apr 1	Apr 11	Oct 19	Oct 31	Nov 14	Nov 28	Dec 11
(36 years)	24	Mar 14	Mar 23	Apr 2	Apr 12	Apr 21	Oct 10	Oct 19	Oct 29	Nov 8	Nov 17
	28	Apr 5	Apr 16	Apr 28	May 10	May 21	Sep 13	Sep 23	Oct 4	Oct 15	Oct 25
	32	May 2	May 12	May 24	Jun 5	Jun 15	Aug 25	Sep 4	Sep 16	Sep 27	Oct 7
Warren	20	Apr 28	May 6	May 14	May 23	May 31	Sep 1	Sep 10	Sep 20	Oct 1	Oct 10
(13 years)	24	May 25	Jun 4	Jun 15	Jun 26	Jul 6	Jul 21	Aug 5	Aug 22	Sep 7	Sep 22
	28	Jun 19	Jun 24	Jun 30	Jul 6	Jul 11	Jul 3	Jul 12	Jul 23	Aug 2	Aug 11
	32	Jul 3	Jul 5	Jul 7	Jul 9	Jul 11	Jul 9	Jul 11	Jul 13	Jul 16	Jul 18
SOUTHWEST											
Arrowrock Dam	20	Feb 11	Feb 22	Mar 3	Mar 15	Mar 25	Oct 31	Nov 10	Nov 20	Dec 1	Dec 11
(26 years)	24	Mar 8	Mar 16	Mar 26	Apr 4	Apr 13	Oct 20	Oct 28	Nov 7	Nov 16	Nov 24
	28	Mar 30	Apr 6	Apr 14	Apr 22	Apr 30	Sep 29	Oct 8	Oct 18	Oct 28	Nov 6
	32	Apr 20	Apr 26	May 3	May 10	May 17	Sep 21	Sep 28	Oct 5	Oct 12	Oct 18
Boise A.P.	20	Jan 23	Feb 8	Feb 27	Mar 15	Apr 1	Nov 3	Nov 14	Nov 27	Dec 10	Dec 21
(21 years)	24	Mar 6	Mar 16	Mar 27	Apr 7	Apr 16	Oct 1	Oct 16	Nov 1	Nov 17	Dec 1
	28	Apr 1	Apr 10	Apr 21	May 2	May 12	Sep 24	Oct 5	Oct 17	Oct 29	Nov 9
	32	Apr 21	Apr 28	May 6	May 14	May 21	Sep 20	Sep 28	Oct 8	Oct 18	Oct 27
Boise Lucky Peak Dam	20	Jan 30	Feb 14	Mar 1	Mar 17	Apr 1	Nov 10	Nov 22	Dec 5	Dec 18	Dec 30
(13 years)	24	Mar 13	Mar 23	Apr 3	Apr 14	Apr 23	Oct 26	Nov 4	Nov 14	Nov 24	Dec 2
	28	Apr 7	Apr 14	Apr 22	Apr 30	May 8	Oct 1	Oct 13	Oct 25	Nov 7	Nov 18
	32	Apr 25	May 2	May 10	May 17	May 24	Sep 18	Sep 29	Oct 11	Oct 24	Nov 4
Caldwell	20	Feb 11	Feb 25	Mar 11	Mar 26	Apr 9	Oct 20	Oct 29	Nov 8	Nov 18	Nov 26
(48 years)	24	Mar 14	Mar 23	Apr 3	Apr 13	Apr 22	Oct 9	Oct 17	Oct 26	Nov 3	Nov 11
	28	Mar 31	Apr 9	Apr 19	Apr 29	May 8	Sep 27	Oct 4	Oct 12	Oct 19	Oct 26
	32	Apr 19	Apr 26	May 5	May 13	May 20	Sep 11	Sep 18	Sep 25	Oct 3	Oct 10

Table 2. Continued.

Station	Temp.	Percent probability of indicated temperature or lower occurring on or after date in fall. 90%	75%	50%	25%	10%	Percent probability of indicated temperature or lower occurring on or after date in spring. 10%	25%	50%	75%	90%
SOUTHWEST											
Cambridge	20	Mar 1	Mar 11	Mar 24	Apr 7	Apr 19	Oct 2	Oct 12	Oct 23	Nov 4	Nov 14
(41 years)	24	Mar 18	Mar 31	Apr 15	Apr 30	May 13	Sep 21	Sep 30	Oct 10	Oct 20	Oct 29
	28	Apr 11	Apr 21	May 2	May 13	May 23	Sep 10	Sep 19	Sep 28	Oct 8	Oct 17
	32	Apr 28	May 10	May 23	Jun 6	Jun 18	Aug 28	Sep 6	Sep 15	Sep 24	Oct 3
Cascade	20	Apr 2	Apr 11	Apr 21	Apr 30	May 9	Sep 26	Oct 6	Oct 17	Oct 28	Nov 6
(26 years)	24	Apr 18	Apr 25	May 4	May 12	May 20	Sep 10	Sep 20	Oct 1	Oct 11	Oct 21
	28	May 5	May 17	May 29	Jun 11	Jun 22	Aug 30	Sep 7	Sep 17	Sep 26	Oct 4
	32	May 24	Jun 3	Jun 14	Jun 25	Jul 5	Aug 9	Aug 20	Sep 2	Sep 14	Sep 25
Council	20	Mar 1	Mar 10	Mar 23	Apr 4	Apr 15	Oct 16	Oct 24	Nov 3	Nov 12	Nov 20
(24 years)	24	Mar 22	Apr 2	Apr 14	Apr 26	May 6	Sep 27	Oct 6	Oct 16	Oct 27	Nov 5
	28	Apr 10	Apr 20	May 1	May 13	May 23	Sep 18	Sep 26	Oct 4	Oct 12	Oct 20
	32	Apr 23	May 5	May 17	May 30	Jun 11	Sep 9	Sep 16	Sep 24	Oct 2	Oct 9
Deadwood Dam	20	Apr 20	Apr 28	May 8	May 17	May 25	Sep 14	Sep 24	Oct 6	Oct 18	Oct 29
(42 years)	24	May 5	May 17	May 29	Jun 11	Jun 22	Aug 23	Sep 3	Sep 16	Sep 28	Oct 10
	28	Jun 4	Jun 13	Jun 22	Jul 2	Jul 10	Jul 22	Aug 3	Aug 18	Sep 1	Sep 14
	32	Jun 25	Jun 29	Jul 3	Jul 6	Jul 10	Jul 9	Jul 16	Jul 25	Aug 2	Aug 9
Emmett	20	Feb 14	Feb 26	Mar 9	Mar 22	Apr 2	Oct 28	Nov 7	Nov 18	Nov 29	Dec 9
(26 years)	24	Mar 16	Mar 24	Apr 2	Apr 10	Apr 18	Oct 8	Oct 16	Oct 26	Nov 5	Nov 14
	28	Apr 3	Apr 13	Apr 24	May 5	May 15	Sep 25	Oct 4	Oct 13	Oct 23	Nov 1
	32	Apr 30	May 8	May 17	May 26	Jun 3	Sep 9	Sep 18	Sep 29	Oct 10	Oct 19
Glenns Ferry	20	Mar 22	Mar 29	Apr 7	Apr 15	Apr 22	Oct 7	Oct 22	Nov 9	Nov 26	Dec 11
(10 years)	24	Mar 30	Apr 6	Apr 14	Apr 21	Apr 28	Sep 29	Oct 6	Oct 14	Oct 22	Oct 29
	28	Apr 17	Apr 24	May 3	May 11	May 19	Sep 25	Oct 2	Oct 9	Oct 17	Oct 24
	32	May 2	May 9	May 16	May 23	May 29	Sep 13	Sep 20	Sep 28	Oct 7	Oct 14
Grandview	20	Mar 5	Mar 14	Mar 25	Apr 4	Apr 13	Oct 21	Oct 28	Nov 5	Nov 13	Nov 20
(23 years)	24	Mar 25	Mar 31	Apr 7	Apr 14	Apr 20	Oct 3	Oct 11	Oct 20	Oct 29	Nov 7
	28	Apr 12	Apr 18	Apr 25	May 3	May 9	Sep 22	Sep 30	Oct 9	Oct 19	Oct 27
	32	Apr 18	Apr 26	May 5	May 15	May 23	Sep 10	Sep 18	Sep 26	Oct 5	Oct 12
Idaho City	20	Mar 30	Apr 9	Apr 21	May 3	May 13	Sep 25	Oct 5	Oct 15	Oct 26	Nov 4
(42 years)	24	Apr 22	May 1	May 11	May 22	May 31	Sep 11	Sep 19	Sep 28	Oct 6	Oct 14
	28	May 11	May 22	Jun 4	Jun 17	Jun 28	Aug 25	Sep 2	Sep 12	Sep 21	Sep 29
	32	Jun 5	Jun 13	Jun 23	Jul 2	Jul 10	Jul 24	Aug 5	Aug 19	Sep 3	Sep 15
Kuna	20	Mar 23	Mar 30	Apr 8	Apr 16	Apr	Oct 15	Oct 25	Nov 5	Nov 16	Nov 26
(13 years)	24	Apr 6	Apr 14	Apr 22	Apr 30	May 7	Sep 29	Oct 8	Oct 18	Oct 28	Nov 6
	28	Apr 13	Apr 22	May 1	May 11	May 19	Sep 19	Sep 28	Oct 8	Oct 18	Oct 26
	32	May 6	May 13	May 22	May 30	Jun 6	Sep 8	Sep 17	Sep 26	Oct 6	Oct 14
McCall	20	Apr 4	Apr 12	Apr 22	May 1	May 10	Sep 29	Oct 9	Oct 19	Oct 29	Nov 8
(45 years)	24	Apr 14	Apr 23	May 3	May 12	May 21	Sep 12	Sep 21	Oct 1	Oct 11	Oct 20
	28	May 5	May 16	May 27	Jun 7	Jun 17	Aug 27	Sep 4	Sep 13	Sep 22	Oct 1
	32	May 31	Jun 9	Jun 18	Jun 27	Jul 6	Jul 29	Aug 10	Aug 10	Aug 5	Sep 17
Mountain Home	20	Mar 6	Mar 18	Mar 31	Apr 13	Apr 25	Oct 11	Oct 20	Oct 31	Nov 10	Nov 20
(21 years)	24	Mar 29	Apr 7	Apr 17	Apr 28	May 7	Oct 4	Oct 12	Oct 21	Oct 30	Nov 6
	28	Apr 20	Apr 26	May 3	May 10	May 16	Sep 20	Sep 28	Oct 7	Oct 16	Oct 24
	32	Apr 30	May 11	May 23	Jun 3	Jun 14	Sep 7	Sep 14	Sep 22	Sep 29	Oct 6
Ola	20	Mar 12	Mar 23	Apr 4	Apr 16	Apr 27	Oct 3	Oct 13	Oct 24	Nov 4	Nov 13
(21 years)	24	Mar 30	Apr 10	Apr 23	May 5	May 16	Sep 16	Sep 26	Oct 7	Oct 18	Oct 28
	28	Apr 23	May 1	May 11	May 20	May 28	Sep 13	Sep 20	Sep 28	Oct 6	Oct 14
	32	May 4	May 15	May 27	Jun 8	Jun 19	Sep 1	Sep 7	Sep 13	Sep 20	Sep 26
Parma	20	Feb 23	Mar 4	Mar 17	Mar 30	Apr 10	Oct 12	Oct 23	Nov 4	Nov 16	Nov 27
(48 years)	24	Mar 20	Mar 30	Apr 9	Apr 20	Apr 29	Oct 1	Oct 11	Oct 21	Oct 31	Nov 9
	28	Apr 5	Apr 14	Apr 23	May 3	May 12	Sep 20	Sep 28	Oct 7	Oct 17	Oct 25
	32	Apr 20	Apr 28	May 7	May 16	May 24	Sep 11	Sep 18	Sep 25	Oct 3	Oct 10
Payette	20	Mar 1	Mar 9	Mar 20	Mar 30	Apr 9	Oct 20	Oct 29	Nov 8	Nov 18	Nov 26
(24 years)	24	Mar 15	Mar 24	Apr 3	Apr 13	Apr 23	Oct 9	Oct 16	Oct 24	Nov 1	Nov 8
	28	Apr 3	Apr 12	Apr 22	May 1	May 10	Sep 28	Oct 5	Oct 13	Oct 20	Oct 27
	32	Apr 22	Apr 30	May 9	May 18	May 26	Sep 16	Sep 22	Sep 29	Oct 6	Oct 12
Three Creek	20	Apr 15	Apr 27	May 10	May 23	Jun 4	Sep 1	Sep 11	Sep 22	Oct 2	Oct 12
(23 years)	24	Apr 28	May 11	May 26	Jun 10	Jun 24	Aug 11	Aug 23	Sep 6	Sep 20	Oct 3
	28	May 21	Jun 1	Jun 13	Jun 25	Jul 7	Jul 23	Aug 5	Aug 19	Sep 3	Sep 16
	32	Jun 19	Jun 24	Jun 29	Jul 4	Jul 9	Jul 6	Jul 17	Jul 28	Aug 9	Aug 20

Table 2. Continued.

Station	Temp.	Percent probability of indicated temperature or lower occurring on or after date in fall. 90%	75%	50%	25%	10%	Percent probability of indicated temperature or lower occurring on or after date in spring. 10%	25%	50%	75%	90%
SOUTHWEST											
Weiser	20	Mar 1	Mar 11	Mar 22	Apr 2	Apr 12	Oct 12	Oct 22	Nov 2	Nov 13	Nov 23
(22 years)	24	Mar 31	Apr 7	Apr 15	Apr 23	Apr 30	Oct 2	Oct 10	Oct 18	Oct 26	Nov 3
	28	Apr 9	Apr 18	Apr 28	May 8	May 17	Sep 19	Sep 28	Oct 7	Oct 17	Oct 26
	32	Apr 30	May 7	May 15	May 23	May 30	Sep 14	Sep 19	Sep 24	Sep 30	Oct 5
SOUTH CENTRAL											
Bliss	20	Mar 8	Mar 20	Apr 2	Apr 15	Apr 27	Oct 17	Oct 26	Nov 5	Nov 15	Nov 24
(43 years)	24	Mar 27	Apr 6	Apr 18	Apr 30	May 10	Oct 1	Oct 9	Oct 18	Oct 27	Nov 4
	28	Apr 15	Apr 25	May 6	May 16	May 26	Sep 18	Sep 26	Oct 4	Oct 13	Oct 20
	32	Apr 30	May 9	May 20	May 31	Jun 10	Aug 31	Sep 10	Sep 21	Oct 3	Oct 13
Burley	20	Mar 18	Mar 27	Apr 7	Apr 17	Apr 27	Oct 1	Oct 9	Oct 19	Oct 28	Nov 5
(13 years)	24	Mar 28	Apr 6	Apr 16	Apr 26	May 4	Sep 26	Oct 3	Oct 11	Oct 20	Oct 27
	28	Apr 23	Apr 30	May 7	May 14	May 20	Sep 18	Sep 25	Oct 2	Oct 9	Oct 16
	32	Apr 21	May 1	May 13	May 25	Jun 5	Sep 4	Sep 12	Sep 20	Sep 29	Oct 6
Castleford	20	Mar 22	Mar 30	Apr 7	Apr 15	Apr 23	Oct 11	Oct 19	Oct 28	Nov 5	Nov 13
(10 years)	24	Apr 9	Apr 15	Apr 21	Apr 28	May 4	Oct 3	Oct 8	Oct 12	Oct 17	Oct 21
	28	Apr 24	Apr 30	May 7	May 14	May 20	Sep 18	Sep 23	Sep 30	Oct 6	Oct 11
	32	May 2	May 11	May 23	Jun 3	Jun 12	Sep 4	Sep 11	Sep 18	Sep 26	Oct 3
Fairfield	20	Mar 28	Apr 7	Apr 19	Apr 30	May 10	Sep 20	Sep 29	Oct 9	Oct 19	Oct 28
(26 years)	24	Apr 12	Apr 22	May 3	May 13	May 23	Sep 8	Sep 17	Sep 27	Oct 7	Oct 16
	28	May 5	May 18	Jun 1	Jun 16	Jun 29	Aug 25	Sep 4	Sep 16	Sep 27	Oct 7
	32	Jun 7	Jun 14	Jun 22	Jun 30	Jul 7	Aug 4	Aug 18	Sep 2	Sep 18	Oct 2
Hailey R.S.	20	Mar 24	Apr 2	Apr 12	Apr 22	May 1	Oct 2	Oct 11	Oct 20	Oct 30	Nov 7
(39 years)	24	Apr 7	Apr 17	Apr 29	May 10	May 20	Sep 22	Sep 30	Oct 9	Oct 18	Oct 26
	28	Apr 27	May 7	May 19	May 31	Jun 11	Sep 3	Sep 13	Sep 23	Oct 4	Oct 13
	32	May 23	Jun 1	Jun 10	Jun 19	Jun 28	Aug 22	Sep 1	Sep 11	Sep 22	Oct 1
Hill City	20	Mar 26	Apr 7	Apr 20	May 3	May 15	Sep 14	Sep 23	Oct 2	Oct 12	Oct 20
(42 years)	24	Apr 17	Apr 30	May 15	May 30	Jun 13	Sep 6	Sep 13	Sep 21	Sep 28	Oct 5
	28	May 10	May 22	Jun 4	Jun 17	Jun 29	Aug 20	Aug 29	Sep 9	Sep 19	Sep 29
	32	Jun 7	Jun 14	Jun 22	Jun 30	Jul 7	Jul 28	Aug 8	Aug 20	Sep 1	Sep 12
Hollister	20	Mar 22	Mar 31	Apr 10	Apr 20	Apr 29	Oct 14	Oct 23	Nov 3	Nov 14	Nov 24
(24 years)	24	Apr 9	Apr 16	Apr 24	May 2	May 9	Oct 3	Oct 9	Oct 16	Oct 23	Oct 30
	28	Apr 21	Apr 30	May 10	May 19	May 28	Sep 18	Sep 26	Oct 5	Oct 13	Oct 21
	32	May 5	May 14	May 25	Jun 4	Jun 13	Sep 9	Sep 15	Sep 22	Sep 29	Oct 6
Jerome	20	Mar 7	Mar 17	Mar 29	Apr 9	Apr 19	Oct 26	Nov 2	Nov 10	Nov 18	Nov 26
(13 years)	24	Mar 24	Mar 31	Apr 8	Apr 16	Apr 23	Oct 4	Oct 13	Oct 23	Nov 1	Nov 10
	28	Apr 13	Apr 21	Apr 29	May 8	May 15	Sep 29	Oct 5	Oct 12	Oct 18	Oct 24
	32	Apr 27	May 5	May 14	May 23	May 31	Sep 15	Sep 22	Sep 30	Oct 8	Oct 16
Minidoka Dam	20	Mar 1	Mar 13	Mar 27	Apr 10	Apr 23	Oct 17	Oct 27	Nov 7	Nov 18	Nov 27
(25 years)	24	Mar 24	Apr 1	Apr 10	Apr 19	Apr 28	Oct 8	Oct 17	Oct 27	Nov 6	Nov 15
	28	Apr 8	Apr 16	Apr 25	May 4	May 12	Sep 28	Oct 5	Oct 13	Oct 21	Oct 28
	32	Apr 21	May 2	May 14	May 26	Jun 5	Sep 17	Sep 24	Oct 1	Oct 9	Oct 16
Oakley	20	Mar 12	Mar 25	Apr 8	Apr 23	May 5	Oct 9	Oct 20	Nov 1	Nov 13	Nov 24
(39 years)	24	Mar 31	Apr 11	Apr 23	May 5	May 17	Oct 2	Oct 11	Oct 21	Oct 30	Nov 8
	28	Apr 16	Apr 25	May 5	May 16	May 25	Sep 17	Sep 25	Oct 4	Oct 14	Oct 22
	32	May 4	May 13	May 23	Jun 2	Jun 11	Sep 7	Sep 15	Sep 23	Oct 1	Oct 9
Paul	20	Mar 18	Mar 27	Apr 6	Apr 15	Apr 24	Oct 4	Oct 15	Oct 27	Nov 8	Nov 19
(13 years)	24	Apr 1	Apr 9	Apr 19	Apr 28	May 6	Sep 25	Oct 3	Oct 12	Oct 20	Oct 28
	28	Apr 21	Apr 27	May 5	May 12	May 18	Sep 22	Sep 28	Oct 5	Oct 12	Oct 18
	32	Apr 25	May 6	May 17	May 28	Jun 7	Sep 5	Sep 13	Sep 22	Sep 30	Oct 8
Richfield	20	Mar 23	Apr 2	Apr 13	Apr 24	May 4	Oct 10	Oct 18	Oct 28	Nov 6	Nov 14
(13 years)	24	Apr 19	Apr 25	May 2	May 9	May 15	Sep 22	Sep 30	Oct 9	Oct 17	Oct 25
	28	Apr 24	May 4	May 15	May 26	Jun 5	Sep 17	Sep 24	Oct 2	Oct 9	Oct 16
	32	May 2	May 14	May 28	Jun 10	Jun 22	Aug 30	Sep 8	Sep 17	Sep 27	Oct 5
Rupert	20	Mar 9	Mar 17	Mar 27	Apr 5	Apr 14	Oct 23	Oct 30	Nov 7	Nov 14	Nov 21
(31 years)	24	Mar 26	Apr 3	Apr 12	Apr 21	Apr 29	Oct 8	Oct 15	Oct 23	Oct 31	Nov 7
	28	Apr 14	Apr 20	Apr 28	May 5	May 12	Sep 25	Oct 2	Oct 11	Oct 19	Oct 26
	32	Apr 24	May 1	May 10	May 19	May 26	Sep 14	Sep 19	Sep 25	Sep 30	Oct 6

Table 2. Continued.

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 after date in fall.* 10%	25%	50%	75%	90%
SOUTH CENTRAL											
Shoshone	20	Mar 22	Mar 31	Apr 11	Apr 21	May 1	Oct 11	Oct 21	Nov 1	Nov 13	Nov 23
	24	Apr 9	Apr 17	Apr 25	May 4	May 12	Sep 27	Oct 6	Oct 16	Oct 25	Nov 3
	28	Apr 25	May 2	May 11	May 20	May 27	Sep 16	Sep 23	Oct 1	Oct 9	Oct 16
	32	May 1	May 12	May 24	Jun 5	Jun 16	Sep 3	Sep 11	Sep 19	Sep 28	Oct 6
Strevell	20	Apr 1	Apr 10	Apr 20	May 1	May 10	Oct 3	Oct 12	Oct 23	Nov 2	Nov 12
(19 years)	24	Apr 17	Apr 25	May 5	May 14	May 23	Sep 22	Sep 29	Oct 7	Oct 15	Oct 22
	28	Apr 24	May 4	May 15	May 27	Jun 6	Sep 8	Sep 17	Sep 26	Oct 6	Oct 15
	32	May 12	May 24	Jun 5	Jun 17	Jun 29	Aug 15	Aug 27	Sep 9	Sep 21	Oct 3
Sun Valley	20	Apr 19	May 2	May 17	Jun 2	Jun 15	Sep 1	Sep 9	Sep 19	Sep 28	Oct 7
(24 years)	24	May 19	May 31	Jun 13	Jun 25	Jul 7	Aug 14	Aug 25	Sep 6	Sep 18	Sep 29
	28	Jun 11	Jun 19	Jun 27	Jul 5	Jul 13	Jul 16	Jul 29	Aug 13	Aug 28	Sep 11
	32	Jun 24	Jun 28	Jul 3	Jul 8	Jul 12	Jul 2	Jul 12	Jul 23	Aug 2	Aug 12
Twin Falls - 2NNE	20	Mar 1	Mar 9	Mar 20	Mar 31	Apr 9	Oct 20	Oct 29	Nov 8	Nov 17	Nov 26
(48 years)	24	Mar 22	Mar 30	Apr 8	Apr 18	Apr 26	Oct 2	Oct 11	Oct 21	Oct 31	Nov 9
	28	Apr 11	Apr 17	Apr 24	May 2	May 8	Sep 20	Sep 27	Oct 6	Oct 15	Oct 22
	32	Apr 28	May 5	May 13	May 21	May 28	Sep 8	Sep 15	Sep 22	Sep 29	Oct 6
Twin Falls - WSO	20	Mar 16	Mar 24	Apr 2	Apr 12	Apr 20	Oct 15	Oct 25	Nov 5	Nov 16	Nov 26
(11 years)	24	Mar 25	Apr 3	Apr 13	Apr 22	May 1	Sep 28	Oct 4	Oct 12	Oct 19	Oct 26
	28	Apr 18	Apr 25	May 3	May 10	May 17	Sep 20	Sep 26	Oct 4	Oct 11	Oct 18
	32	May 4	May 7	May 12	May 16	May 19	Sep 14	Sep 20	Sep 27	Oct 4	Oct 10
EAST											
Aberdeen	20	Mar 24	Apr 2	Apr 12	Apr 21	Apr 30	Oct 1	Oct 10	Oct 19	Oct 28	Nov 6
(50 years)	24	Apr 13	Apr 20	Apr 29	May 7	May 14	Sep 22	Sep 29	Oct 8	Oct 16	Oct 23
	28	Apr 28	May 5	May 13	May 21	May 28	Sep 10	Sep 17	Sep 24	Oct 2	Oct 9
	32	May 13	May 21	May 31	Jun 9	Jun 18	Aug 29	Sep 5	Sep 13	Sep 20	Sep 27
American Falls	20	Mar 7	Mar 18	Mar 29	Apr 9	Apr 19	Oct 7	Oct 15	Oct 24	Nov 2	Nov 10
(10 years)	24	Mar 31	Apr 8	Apr 16	Apr 25	May 2	Oct 1	Oct 9	Oct 18	Oct 26	Nov 3
	28	Apr 14	Apr 22	May 1	May 10	May 17	Sep 10	Sep 20	Oct 1	Oct 12	Oct 22
	32	Apr 22	May 1	May 12	May 22	Jun 1	Sep 9	Sep 17	Sep 25	Oct 4	Oct 12
Arco	20	Apr 5	Apr 14	Apr 23	May 3	May 11	Sep 22	Sep 30	Oct 8	Oct 16	Oct 24
(13 years)	24	Apr 22	Apr 27	May 4	May 10	May 15	Sep 16	Sep 23	Oct 2	Oct 10	Oct 17
	28	May 1	May 6	May 12	May 18	May 23	Sep 3	Sep 11	Sep 19	Sep 28	Oct 5
	32	May 16	May 28	Jun 10	Jun 23	Jul 5	Aug 25	Aug 30	Sep 6	Sep 12	Sep 18
Ashton	20	Mar 28	Apr 7	Apr 17	Apr 27	May 6	Sep 26	Oct 6	Oct 16	Oct 27	Nov 5
(43 years)	24	Apr 11	Apr 20	Apr 29	May 9	May 17	Sep 12	Sep 21	Oct 2	Oct 12	Oct 22
	28	Apr 23	May 4	May 16	May 29	Jun 9	Aug 30	Sep 8	Sep 18	Sep 28	Oct 7
	32	May 21	May 31	Jun 11	Jun 21	Jul 1	Aug 12	Aug 23	Sep 4	Sep 16	Sep 27
Blackfoot	20	Mar 15	Mar 25	Apr 4	Apr 14	Apr 23	Oct 7	Oct 17	Oct 29	Nov 9	Nov 20
(20 years)	24	Mar 31	Apr 10	Apr 21	May 2	May 12	Sep 23	Oct 1	Oct 10	Oct 19	Oct 26
	28	Apr 14	Apr 22	May 2	May 11	May 19	Sep 14	Sep 22	Sep 30	Oct 8	Oct 15
	32	May 3	May 12	May 23	Jun 3	Jun 12	Sep 5	Sep 11	Sep 18	Sep 24	Sep 30
Challis	20	Mar 27	Apr 3	Apr 11	Apr 20	Apr 27	Oct 9	Oct 17	Oct 26	Nov 4	Nov 12
(43 years)	24	Apr 11	Apr 18	Apr 25	May 3	May 9	Sep 23	Oct 1	Oct 11	Oct 20	Oct 29
	28	Apr 24	May 2	May 10	May 19	May 26	Sep 13	Sep 20	Sep 27	Oct 5	Oct 12
	32	May 7	May 18	May 29	Jun 10	Jun 20	Sep 5	Sep 10	Sep 16	Sep 22	Sep 28
Conda	20	Apr 15	Apr 21	Apr 29	May 6	May 12	Sep 19	Sep 28	Oct 8	Oct 18	Oct 28
(13 years)	24	Apr 22	Apr 30	May 9	May 18	May 26	Sep 9	Sep 17	Sep 25	Oct 4	Oct 11
	28	May 1	May 14	May 29	Jun 12	Jun 25	Aug 28	Sep 5	Sep 14	Sep 23	Oct 1
	32	Jun 3	Jun 11	Jun 21	Jun 30	Jul 8	Aug 6	Aug 16	Aug 28	Sep 9	Sep 20
Driggs	20	Apr 10	Apr 17	Apr 25	May 2	May 9	Sep 17	Sep 26	Oct 6	Oct 16	Oct 24
(37 years)	24	Apr 24	May 3	May 12	May 21	May 30	Sep 9	Sep 17	Sep 25	Oct 3	Oct 10
	28	May 9	May 17	May 27	Jun 6	Jun 14	Aug 23	Aug 31	Sep 10	Sep 19	Sep 27
	32	Jun 4	Jun 12	Jun 20	Jun 28	Jul 6	Aug 5	Aug 16	Aug 28	Sep 8	Sep 19
Dubois	20	Mar 26	Apr 3	Apr 12	Apr 21	Apr 29	Oct 2	Oct 11	Oct 22	Nov 1	Nov 10
(50 years)	24	Apr 3	Apr 14	Apr 25	May 7	May 17	Sep 23	Oct 2	Oct 12	Oct 22	Oct 31
	28	Apr 16	Apr 26	May 8	May 20	May 30	Sep 12	Sep 21	Sep 30	Oct 10	Oct 19
	32	May 8	May 18	May 28	Jun 8	Jun 17	Aug 31	Sep 9	Sep 18	Sep 28	Oct 7

Table 2. Continued.

Station	Temp.	Percent probability of indicated temperature or lower occurring on or after date in fall.					Percent probability of indicated temperature or lower occurring on or after date in spring.				
		90%	75%	50%	25%	10%	10%	25%	50%	75%	90%
EAST											
Fort Hall	20	Mar 24	Mar 31	Apr 8	Apr 16	Apr 23	Oct 8	Oct 15	Oct 24	Nov 1	Nov 8
(26 years)	24	Apr 14	Apr 19	Apr 25	May 1	May 6	Sep 25	Oct 2	Oct 10	Oct 18	Oct 25
	28	Apr 20	Apr 29	May 8	May 16	May 25	Sep 12	Sep 18	Sep 26	Oct 3	Oct 10
	32	May 3	May 13	May 25	Jun 6	Jun 17	Aug 30	Sep 6	Sep 13	Sep 21	Sep 28
Grace	20	Mar 28	Apr 5	Apr 14	Apr 22	Apr 30	Oct 7	Oct 15	Oct 23	Nov 1	Nov 8
(43 years)	24	Apr 15	Apr 21	Apr 28	May 5	May 11	Sep 19	Sep 28	Oct 8	Oct 17	Oct 26
	28	Apr 24	May 4	May 16	May 27	Jun 6	Sep 9	Sep 17	Sep 25	Oct 4	Oct 12
	32	May 16	May 26	Jun 6	Jun 16	Jun 26	Aug 26	Sep 3	Sep 12	Sep 22	Sep 30
Grouse	20	Apr 29	May 5	May 12	May 19	May 25	Sep 2	Sep 11	Sep 21	Sep 30	Oct 9
(13 years)	24	May 1	May 13	May 26	Jun 9	Jun 20	Aug 22	Aug 30	Sep 9	Sep 18	Sep 26
	28	May 30	Jun 9	Jun 20	Jul 1	Jul 11	Jul 18	Jul 31	Aug 13	Aug 26	Sep 8
	32	Jun 15	Jun 22	Jun 29	Jul 6	Jul 13	Jul 8	Jul 16	Jul 25	Aug 3	Aug 11
Idaho Falls	20	Mar 20	Mar 28	Apr 5	Apr 13	Apr 21	Oct 14	Oct 21	Oct 30	Nov 7	Nov 14
(45 years)	24	Mar 29	Apr 7	Apr 17	Apr 27	May 5	Sep 26	Oct 5	Oct 15	Oct 24	Nov 2
	28	Apr 16	Apr 24	May 3	May 12	May 20	Sep 17	Sep 24	Oct 2	Oct 10	Oct 17
	32	May 7	May 14	May 22	May 30	Jun 5	Sep 6	Sep 13	Sep 20	Sep 28	Oct 4
Island Park Dam	20	Apr 20	Apr 27	May 4	May 11	May 17	Sep 15	Sep 24	Oct 4	Oct 14	Oct 24
(35 years)	24	May 1	May 11	May 22	Jun 2	Jun 12	Sep 3	Sep 11	Sep 20	Sep 29	Oct 7
	28	May 17	May 27	Jun 8	Jun 20	Jun 1	Aug 13	Aug 23	Sep 2	Sep 13	Sep 22
	32	Jun 13	Jun 19	Jun 26	Jul 3	Jul 9	Jul 21	Aug 2	Aug 15	Aug 28	Sep 9
Kilgore	20	Apr 24	Apr 28	May 3	May 7	May 11	Sep 8	Sep 16	Sep 25	Oct 4	Oct 12
(13 years)	24	Apr 25	May 4	May 14	May 24	Jun 2	Aug 31	Sep 8	Sep 17	Sep 26	Oct 5
	28	May 25	Jun 4	Jun 15	Jun 25	Jul 5	Aug 12	Aug 23	Sep 3	Sep 14	Sep 25
	32	Jun 19	Jun 24	Jun 29	Jul 5	Jul 10	Jul 9	Jul 20	Aug 2	Aug 15	Aug 27
Mackay R.S.	20	Apr 2	Apr 10	Apr 19	Apr 28	May 7	Oct 5	Oct 13	Oct 23	Nov 1	Nov 10
(39 years)	24	Apr 14	Apr 22	Apr 30	May 9	May 17	Sep 22	Sep 30	Oct 10	Oct 19	Oct 28
	28	Apr 27	May 7	May 18	May 29	Jun 8	Sep 14	Sep 20	Sep 26	Oct 3	Oct 9
	32	May 20	May 29	Jun 8	Jun 17	Jun 26	Aug 30	Sep 5	Sep 13	Sep 20	Sep 27
Malad	20	Mar 13	Mar 22	Apr 1	Apr 12	Apr 21	Oct 21	Oct 28	Nov 5	Nov 13	Nov 21
(43 years)	24	Mar 29	Apr 6	Apr 15	Apr 25	May 3	Oct 4	Oct 12	Oct 22	Oct 31	Nov 9
	28	Apr 16	Apr 24	May 1	May 9	May 16	Sep 19	Sep 28	Oct 8	Oct 17	Oct 26
	32	Apr 29	May 8	May 19	May 29	Jun 8	Sep 6	Sep 14	Sep 22	Oct 1	Oct 9
May	20	Apr 11	Apr 18	Apr 25	May 2	May 9	Sep 22	Sep 30	Oct 8	Oct 16	Oct 24
(25 years)	24	Apr 16	Apr 25	May 5	May 15	May 24	Sep 15	Sep 22	Sep 29	Oct 7	Oct 14
	28	Apr 27	May 9	May 23	Jun 5	Jun 17	Aug 31	Sep 8	Sep 16	Sep 25	Oct 2
	32	May 31	Jun 8	Jun 18	Jun 27	Jul 6	Aug 12	Aug 22	Sep 2	Sep 13	Sep 23
Montpelier R.S.	20	Mar 27	Apr 11	Apr 28	May 14	May 29	Sep 1	Sep 17	Oct 6	Oct 25	Nov 10
(44 years)	24	Apr 10	Apr 24	May 9	May 24	Jun 7	Aug 26	Sep 8	Sep 24	Oct 9	Oct 23
	28	May 4	May 16	May 30	Jun 12	Jun 24	Aug 19	Aug 31	Sep 13	Sep 26	Oct 8
	32	May 27	Jun 5	Jun 15	Jun 25	Jul 4	Aug 6	Aug 17	Aug 30	Sep 12	Sep 23
Pocatello	20	Mar 11	Mar 20	Mar 31	Apr 10	Apr 20	Oct 14	Oct 22	Oct 31	Nov 9	Nov 17
(34 years)	24	Mar 24	Apr 2	Apr 12	Apr 22	May 1	Sep 28	Oct 6	Oct 16	Oct 25	Nov 2
	28	Apr 18	Apr 23	Apr 29	May 5	May 10	Sep 18	Sep 26	Oct 6	Oct 15	Oct 23
	32	Apr 27	May 6	May 16	May 26	Jun 4	Sep 6	Sep 13	Sep 20	Sep 27	Oct 4
Preston	20	Mar 18	Mar 26	Apr 3	Apr 11	Apr 19	Oct 19	Oct 26	Nov 3	Nov 11	Nov 19
(15 years)	24	Apr 7	Apr 12	Apr 18	Apr 23	Apr 29	Oct 6	Oct 13	Oct 20	Oct 28	Nov 3
	28	Apr 11	Apr 22	May 5	May 18	May 29	Sep 19	Sep 25	Oct 3	Oct 11	Oct 18
	32	Apr 29	May 9	May 20	Jun 1	Jun 11	Sep 5	Sep 13	Sep 22	Oct 1	Oct 10
St. Anthony	20	Apr 6	Apr 13	Apr 20	Apr 28	May 5	Sep 23	Oct 3	Oct 13	Oct 24	Nov 2
(24 yrs.)	24	Apr 13	Apr 21	May 1	May 10	May 19	Sep 11	Sep 19	Sep 27	Oct 6	Oct 14
	28	Apr 26	May 8	May 21	Jun 3	Jun 14	Aug 31	Sep 8	Sep 17	Sep 25	Oct 3
	32	May 13	May 23	Jun 4	Jun 16	Jun 27	Aug 17	Aug 26	Sep 5	Sep 16	Sep 25
Salmon	20	Mar 30	Apr 6	Apr 14	Apr 22	Apr 29	Oct 1	Oct 9	Oct 18	Oct 27	Nov 4
(37 years)	24	Apr 13	Apr 20	Apr 28	May 6	May 14	Sep 20	Sep 27	Oct 6	Oct 14	Oct 22
	28	Apr 28	May 7	May 17	May 27	Jun 5	Sep 5	Sep 12	Sep 20	Sep 28	Oct 4
	32	May 14	May 24	Jun 4	Jun 15	Jun 24	Aug 22	Aug 31	Sep 9	Sep 19	Sep 27
Tetonia	20	Apr 17	Apr 24	May 3	May 12	May 19	Sep 17	Sep 26	Oct 6	Oct 16	Oct 25
(19 years)	24	Apr 23	May 3	May 13	May 24	Jun 2	Sep 10	Sep 17	Sep 25	Oct 3	Oct 11
	28	May 8	May 20	Jun 3	Jun 16	Jun 28	Aug 22	Aug 31	Sep 9	Sep 19	Sep 28
	32	Jun 11	Jun 18	Jun 25	Jul 3	Jul 10	Aug 6	Aug 17	Aug 29	Sep 10	Sep 20

Table 3. Length of growing season for four temperature thesholds.*

Station	Temperature (Degrees) 20	24	28	32	Years Record
NORTH					
Avery R.S.	243	210	159	114	38
Bayview Model Basin	226	197	144	110	13
Bonners Ferry	235	197	163	130	35
Cabinet Gorge	247	211	163	131	16
Coeur d'Alene R.S.	241	205	171	133	49
Cottonwood	223	189	145	106	28
Elk River	211	168	125	80	13
Fenn R.S.	277	240	202	159	41
Grangeville	228	199	161	127	45
Headquarters	209	167	123	79	13
Kellogg	242	208	173	132	48
Kooskia	259	220	183	142	50
Lewiston A.P.	292	260	209	174	26
Moscow, U of I	256	226	176	135	49
Nezperce	228	195	152	124	21
Orofino	295	252	199	156	13
Pierce R.S.	203	173	127	78	21
Porthill	233	195	152	125	49
Potlatch	230	190	146	95	40
Priest River Exp. Sta.	212	175	130	91	48
Riggins R.S.	294	266	220	180	31
St. Maries	247	209	164	125	50
Sandpoint Exp. Sta.	232	199	154	117	50
Wallace	237	209	159	114	36
Warren	129	67	27	21	13
SOUTHWEST					
Arrowrock Dam	261	225	186	154	26
Boise A.P.	274	218	178	155	21
Boise Lucky Peak Dam	278	224	185	154	13
Caldwell	242	206	175	143	48
Cambridge	213	178	149	114	41
Cascade 1NW	179	150	110	79	26
Council	224	185	155	129	24
Deadwood Dam	151	109	56	26	42
Emmett 2E	254	207	172	135	26
Glenns Ferry	215	183	159	135	10
Grandview	225	196	167	143	23
Idaho City	177	139	99	57	42
Kuna 2NNE	211	179	159	127	13
McCall	180	151	109	66	45
Mountain Home	213	186	157	122	21
Ola 4S	202	167	140	109	21
Parma Exp. Sta.	231	194	166	140	48
Payette	233	203	174	143	24
Three Creek	134	103	67	30	23
Weiser 2SE	225	185	162	132	22

Station	Temperature (Degrees) 20	24	28	32	Years Record
SOUTH CENTRAL					
Bliss	217	183	151	124	43
Burley	194	178	148	129	13
Castleford	203	174	145	118	10
Fairfield R.S.	173	147	106	72	26
Hailey R.S.	191	162	126	93	39
Hill City	165	128	97	59	42
Hollister	207	175	147	120	24
Jerome	226	197	165	139	13
Minidoka Dam	224	199	171	140	25
Oakley	206	180	152	122	39
Paul	204	176	153	127	13
Richfield	197	159	139	112	13
Rupert	224	194	165	137	31
Shoshone	204	173	143	118	38
Strevell	185	155	134	95	19
Sun Valley	124	85	48	27	24
Twin Falls 2NNE	232	195	164	131	48
Twin Falls WSO	217	182	154	138	11
EASTERN					
Aberdeen Exp. Sta.	190	162	134	105	50
American Falls	209	184	153	136	10
Arco	167	151	130	88	13
Ashton 1S	182	155	125	85	43
Blackfoot	208	171	151	117	20
Challis	197	168	140	110	43
Conda	162	139	108	68	13
Driggs	163	135	105	68	37
Dubois Exp. Sta.	192	169	145	113	50
Fort Hall	198	168	141	111	26
Grace	192	162	132	98	43
Grouse	131	105	54	28	13
Idaho Falls A.P.	207	180	152	121	45
Island Park Dam	153	121	85	50	35
Kilgore	145	126	80	34	13
Mackay R.S.	186	162	131	97	39
Malad	218	189	159	126	43
May R.S.	165	147	116	76	25
Montpelier R.S.	161	137	106	76	44
Pocatello A.P.	214	186	159	127	34
Preston 2SE	214	185	151	124	15
St. Anthony	176	149	119	93	24
Salmon	186	160	126	97	37
Tetonia Exp. Sta.	156	134	98	64	19

*At the 50% probability, or average occurrence, of these temperatures in the spring and fall.

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.	38	Mar 22-40	Jul 6-59	Aug 30-52	Nov 17-47	Apr 27-57	Jul 10-64	Jul 21-52	Nov 3-44
Bayview Model Basin	13	Apr 26-71	May 27-73	Sep 8-62	Oct 19-63	May 3-72	Jul 7-71	Aug 18-73	Oct 3-66
Bonners Ferry	35	Apr 3-42	May 25-64	Jul 25-45	Nov 18-37	Apr 18-39	Jun 13-45	Jul 25-45	Oct 28-52
Cabinet Gorge	16	Mar 28-58	May 18-66	Sep 14-70	Nov 3-64	Apr 24-57	May 31-68	Sep 13-74	Oct 20-67
Coeur d'Alene R.S.	49	Mar 14-32	Jun 20-48	Sep 8-46	Nov 23-62	Apr 8-36	Jun 20-48	Sep 7-29	Oct 31-27
Cottonwood	28	Apr 5-36	Jun 10-38	Sep 7-39	Nov 11-44	Apr 27-57	Jul 5-32	Aug 25-54	Oct 14-38
Elk River	13	May 4-72	May 31-74	Aug 30-65	Oct 20-63	May 17-63	Jul 8-62	Jul 15-69	Sep 28-68
Fenn R.S.	41	Mar 13-32	May 29-51	Sep 19-65	Dec 7-34	Mar 30-69	Jun 2-51	Sep 4-69	Nov 27-34
Grangeville	45	Mar 31-30	May 26-67	Sep 8-62	Nov 13-44	Apr 9-36	Jun 13-52	Sep 3-58	Oct 28-40
Headquarters	13	May 1-72	Jul 3-62	Sep 1-73	Oct 17-63	May 16-70	Jul 8-71	Jul 19-62	Oct 1-66
Kellogg	48	Mar 22-43	May 27-45	Aug 29-69	Nov 28-65	Apr 23-57	Jun 14-68	Jul 20-69	Nov 7-62
Kooskia	50	Mar 21-60	May 18-65	Sep 14-70	Dec 6-27	Apr 2-30	Jun 5-56	Sep 8-60	Nov 5-40
Lewiston A.P.	26	Mar 12-67	May 2-54	Sep 17-65	Nov 28-62	Mar 27-58	May 30-51	Sep 14-70	Nov 15-62
Moscow, U of I	49	Mar 11-40	Jun 10-73	Sep 8-62	Nov 29-37	Apr 6-36	Jul 3-62	Aug 16-35	Nov 3-40
Nezperce	21	Apr 6-56	May 27-73	Sep 8-62	Nov 2-52	Apr 27-57	Jul 3-62	Aug 30-65	Oct 26-63
Orofino	13	Mar 12-67	May 1-72	Sep 17-65	Nov 24-62	Apr 17-63	May 23-66	Sep 13-70	Nov 7-62
Pierce R.S.	21	Apr 22-41	Jun 5-43	Aug 16-35	Oct 16-42	Apr 30-38	Jul 9-35	Jul 18-52	Oct 5-40
Porthill	49	Mar 26-34	May 23-60	Sep 3-29	Oct 18-37	Apr 8-36	Jun 28-46	Aug 27-62	Oct 14-38
Potlatch	40	Mar 23-43	Jun 11-73	Aug 18-73	Nov 12-44	Apr 30-58	Jul 10-72	Jul 12-73	Oct 19-63
Priest River Exp. Sta.	48	Apr 16-36	Jun 13-52	Sep 3-56	Oct 19-63	May 5-72	Jul 6-52	Jul 18-62	Oct 2-68
Riggins R.S.	31	Feb 26-46	Apr 26-72	Oct 1-50	Dec 23-62	Mar 23-46	May 31-55	Sep 15-70	Nov 17-62
St. Maries	50	Mar 13-40	May 30-51	Sep 7-29	Nov 23-62	Apr 6-36	Jun 21-43	Aug 16-35	Nov 4-40
Sandpoint Exp. Sta.	50	Mar 22-40	May 31-26	Sep 7-29	Nov 12-44	Apr 23-57	Jun 14-30	Aug 16-35	Oct 22-40
Wallace	36	Mar 13-40	Jun 25-51	Sep 7-29	Nov 5-40	Apr 3-34	Jun 30-49	Jul 24-53	Nov 4-40
Warren	13	Mar 22-40	Jul 6-59	Aug 30-52	Nov 17-47	Apr 27-57	Jul 10-64	Jul 21-52	Nov 3-44
SOUTHWEST									
Arrowrock Dam	26	Mar 26-69	May 7-68	Sep 18-65	Nov 17-62	Apr 12-52	May 23-66	Sep 14-70	Oct 24-63
Boise A.P.	21	Mar 18-40	May 16-74	Sep 14-70	Nov 15-62	Apr 18-73	May 23-66	Sep 12-70	Nov 11-44
Boise Lucky Peak Dam	13	Apr 3-73	May 6-68	Sep 17-65	Nov 21-63	Apr 27-66	Jun 4-62	Sep 13-70	Nov 12-64
Caldwell	48	Mar 22-40	May 23-44	Sep 15-36	Nov 4-40	Apr 8-73	May 26-30	Aug 31-32	Oct 24-63
Cambridge	41	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 1NW	26	Apr 25-63	Jul 1-55	Aug 28-60	Oct 26-63	May 14-58	Jul 9-59	Jul 22-72	Oct 16-63
Council	24	Mar 27-58	May 31-64	Sep 15-70	Oct 29-57	Apr 15-49	Jun 30-68	Sep 4-69	Oct 20-63
Deadwood Dam	42	May 12-33	Jul 8-72	Jul 12-50	Oct 5-40	Jun 15-67	Jul 10-72	Jul 11-72	Aug 31-58
Emmett 2E	26	Mar 15-58	May 23-66	Sep 17-65	Nov 9-50	Apr 21-63	Jun 17-69	Aug 28-60	Nov 9-50
Glenns Ferry	10	Apr 11-71	May 23-66	Sep 18-65	Oct 27-63	Apr 24-63	May 31-74	Sep 15-70	Oct 24-63
Grandview	23	Apr 8-73	May 16-74	Sep 17-65	Nov 9-50	Apr 11-52	Jun 18-73	Aug 30-69	Oct 20-63
Idaho City	42	Apr 28-57	Jul 2-55	Aug 2-37	Oct 18-38	May 14-58	Jul 8-59	Jul 12-74	Sep 27-66
Kuna 2NNE	13	Apr 5-65	May 23-66	Sep 14-70	Nov 6-62	May 3-69	Jun 18-73	Sep 4-69	Oct 24-63
McCall	45	Apr 30-47	Jul 3-55	Aug 22-66	Oct 25-63	May 16-58	Jul 8-59	Jul 12-74	Sep 24-63
Mountain Home	21	Apr 8-71	May 22-60	Sep 15-70	Oct 30-59	Apr 23-63	Jun 27-49	Aug 29-60	Oct 26-63
Ola 4S	21	Apr 6-58	May 28-54	Sep 4-69	Oct 21-59	Apr 17-52	Jun 30-68	Aug 27-60	Sep 29-66
Parma Exp. Sta.	48	Mar 22-40	May 23-66	Aug 21-66	Nov 4-62	Apr 10-36	Jun 4-62	Aug 21-66	Oct 26-63
Payette	24	Mar 27-57	May 23-64	Sep 18-65	Nov 6-62	Apr 16-52	Jun 4-62	Sep 14-70	Oct 26-63
Three Creek	23	May 5-57	Jul 3-66	Jul 12-50	Sep 21-55	Jun 11-67	Jul 10-55	Jul 12-71	Sep 14-55
Weiser 2SE	22	Mar 31-58	May 23-66	Sep 14-70	Nov 6-62	Apr 27-57	Jun 4-66	Sep 12-70	Oct 8-60

Table 4. Continued.

Station	Number of years	28° Fahrenheit				32° Fahrenheit			
		Spring		Fall		Spring		Fall	
		Earliest	Latest	Earliest	Latest	Earliest	Latest	Earliest	Latest
SOUTH CENTRAL									
Bliss	43	Apr 5-47	Jun 19-42	Sep 9-45	Oct 31-40	Apr 24-63	Jun 29-68	Aug 2-37	Oct 24-63
Burley	13	Apr 16-71	May 23-66	Sep 16-70	Oct 27-63	Apr 18-71	Jun 25-66	Aug 30-65	Oct 16-63
Castleford	10	Apr 16-71	May 23-66	Sep 16-70	Oct 15-67	May 9-72	Jun 25-66	Sep 3-64	Oct 4-66
Fairfield R.S.	26	Apr 25-63	Jul 8-59	Aug 28-60	Nov 20-74	May 19-61	Jul 8-59	Jul 22-54	Nov 20-74
Hailey R.S.	39	Apr 22-52	Jun 30-35	Aug 1-66	Oct 24-63	May 12-63	Jul 3-66	Aug 1-66	Oct 20-63
Hill City	42	Apr 25-37	Jul 8-59	Jul 12-74	Oct 18-38	May 18-65	Jul 9-59	Jul 12-74	Sep 12-67
Hollister	24	Apr 11-52	Jun 4-62	Sep 14-70	Nov 9-50	May 4-49	Jun 27-66	Aug 31-65	Oct 17-63
Jerome	13	Apr 4-71	May 23-66	Sep 18-65	Oct 27-72	Apr 24-63	Jun 17-73	Sep 14-70	Oct 24-63
Minidoka Dam	25	Mar 27-57	May 23-66	Sep 17-65	Oct 29-55	Apr 22-63	Jun 30-68	Sep 14-70	Oct 24-63
Oakley	39	Apr 9-49	Jun 23-44	Sep 9-45	Nov 10-39	Apr 24-63	Jun 23-44	Aug 30-32	Oct 24-63
Paul	13	Apr 13-71	May 23-66	Sep 17-65	Oct 27-63	Apr 24-63	Jun 30-68	Aug 29-65	Oct 20-63
Richfield	13	Apr 24-63	Jun 25-66	Sep 14-70	Oct 24-63	Apr 24-63	Jun 30-68	Aug 29-68	Oct 20-63
Rupert	31	Apr 4-34	May 19-41	Sep 15-36	Nov 5-40	Apr 16-34	Jun 2-54	Sep 14-52	Oct 17-38
Shoshone	38	Apr 12-52	Jun 15-45	Sep 14-70	Oct 31-40	Apr 16-52	Jun 29-70	Aug 23-60	Oct 14-52
Strevell	19	Apr 15-49	Jun 21-60	Aug 20-64	Oct 24-63	May 6-49	Jun 30-68	Jul 22-54	Oct 16-63
Sun Valley	24	May 29-65	Jul 9-72	Jul 11-51	Sep 16-68	Jun 4-67	Jul 10-59	Jul 11-65	Sep 12-67
Twin Falls 2NNE	48	Apr 1-30	May 19-50	Sep 15-36	Nov 4-40	Apr 18-34	Jun 16-45	Aug 31-65	Oct 20-63
Twin Falls WSO	11	Apr 13-71	May 23-66	Sep 18-65	Oct 25-72	May 3-69	May 23-66	Sep 12-72	Oct 13-67
EAST									
Aberdeen Exp. Sta.	50	Apr 15-34	Jun 11-47	Sep 8-41	Oct 18-38	Apr 29-57	Jun 30-68	Aug 25-25	Oct 17-38
American Falls	10	Apr 13-71	May 31-74	Sep 9-62	Oct 27-63	Apr 22-63	Jun 7-62	Sep 9-62	Oct 17-63
Arco	13	May 1-62	May 30-73	Aug 30-64	Oct 10-63	May 15-70	Jul 3-66	Aug 21-66	Sep 21-68
Ashton 1S	43	Apr 17-34	Jun 27-49	Aug 21-64	Nov 5-40	May 12-58	Jul 8-59	Jul 13-43	Oct 13-38
Blackfoot	20	Apr 2-49	May 24-60	Sep 8-62	Oct 24-56	Apr 22-52	Jun 25-66	Aug 30-65	Oct 13-60
Challis	43	Apr 9-36	Jun 7-54	Aug 31-32	Nov 3-40	Apr 26-47	Jul 2-55	Aug 28-60	Oct 16-38
Conda	13	May 8-68	Jul 4-62	Aug 23-62	Oct 10-63	May 28-65	Jul 4-69	Jul 13-65	Sep 24-63
Driggs	37	Apr 25-63	Jun 30-47	Aug 8-39	Oct 24-63	May 24-48	Jul 10-46	Jul 12-50	Oct 10-63
Dubois Exp. Sta.	50	Apr 3-34	Jun 21-60	Sep 4-29	Nov 4-40	May 1-69	Jul 9-29	Aug 8-29	Oct 24-63
Fort Hall	26	Apr 13-71	Jun 4-53	Sep 9-62	Oct 24-63	Apr 29-63	Jul 1-68	Aug 20-64	Oct 16-63
Grace	43	Apr 16-49	Jul 5-32	Aug 31-65	Nov 3-40	May 8-40	Jul 5-32	Jul 29-33	Oct 17-38
Grouse	13	May 27-65	Jul 9-72	Jul 12-71	Sep 17-73	Jun 4-67	Jul 10-72	Jul 11-71	Aug 26-73
Idaho Falls A.P.	45	Apr 2-30	Jun 2-43	Sep 9-62	Oct 27-39	Apr 29-63	Jun 25-66	Aug 29-60	Oct 17-38
Island Park Dam	35	May 7-40	Jul 8-59	Jul 13-43	Oct 1-40	May 23-48	Jul 8-59	Jul 12-51	Sep 13-73
Kilgore	13	May 16-70	Jul 4-72	Aug 6-69	Oct 15-63	Jun 7-62	Jul 9-72	Jul 12-74	Sep 13-67
Mackay	39	Apr 3-34	Jun 30-68	Sep 8-62	Oct 14-52	May 7-40	Jul 8-66	Aug 11-47	Oct 10-38
Malad	43	Apr 3-34	May 28-54	Sep 9-62	Nov 7-53	Apr 17-49	Jun 30-68	Aug 29-32	Oct 24-63
May R.S.	25	Apr 23-52	Jul 5-55	Aug 27-54	Oct 17-63	May 11-61	Jul 8-59	Jul 19-62	Oct 10-63
Montpelier R.S.	44	Apr 29-57	Jul 7-46	Jul 23-47	Oct 18-38	May 15-70	Jul 8-44	Jul 21-49	Sep 27-38
Pocatello A.P.	34	Apr 12-56	May 16-74	Sep 13-49	Nov 4-40	Apr 22-52	Jun 30-68	Aug 31-69	Oct 16-63
Preston 2SE	15	Apr 10-52	Jun 21-60	Sep 9-62	Oct 24-63	Apr 17-49	Sep 21-60	Sep 5-56	Oct 24-63
St. Anthony	24	Apr 22-52	Jun 27-49	Aug 29-66	Oct 24-63	May 13-63	Jul 8-59	Jul 22-54	Oct 17-63
Salmon	37	Apr 20-64	Jul 2-55	Aug 28-60	Oct 24-63	May 13-61	Jul 2-55	Jul 30-59	Oct 16-63
Tetonia Exp. Sta.	19	Apr 28-57	Jun 30-71	Aug 21-66	Oct 21-63	May 31-61	Jul 8-59	Jul 22-54	Oct 10-63

Table 5. Means and pooled deviations of length of season in days for short- and long-term records.

Statistic	Length Record	Threshold 20	24	28	32
Mean	Last 13 years	212	177	142	112
	Entire	213	180	145	111
Standard	Last 13 years	25.0	22.8	22.6	22.3
Deviation	Entire	25.9	24.2	23.2	22.3

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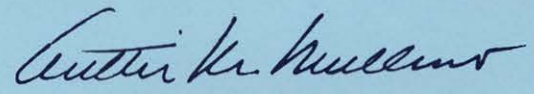
The State is truly our campus. We desire to work for all citizens of the State striving to provide the best possible educational and research information and its application through Cooperative Extension in order to provide a high quality food supply, a strong economy for the State and a quality of life desired by all.



Auttis M. Mullins
Dean, College of Agriculture
University of Idaho

SERVING THE STATE

This is the three-fold charge of the College of Agriculture at your state Land-Grant institution, the University of Idaho. To fulfill this charge, the College extends its faculty and resources to all parts of the state.

Service ... The Cooperative Extension Service has active programs in 42 of Idaho's 44 counties. Current organization places major emphasis on county office contact and multi-county specialists to better serve all the people. These College of Agriculture faculty members are supported cooperatively by federal, state and county funding to work with agriculture, home economics, youth and community development.

Research ... Agricultural Research scientists are located at the campus in Moscow, at Research and Extension Centers near Aberdeen, Caldwell, Parma, Sandpoint Tetonia, Twin Falls and at the U.S. Sheep Experiment Station, Dubois and the USDA/ARS Soil and Water Laboratory at Kimberly. Their work includes research on every major agricultural program in Idaho and on economic and community development activities that apply to the state as a whole.

Teaching ... Centers of College of Agriculture teaching are the University classrooms and laboratories where agriculture students can earn bachelor of science degrees in any of 20 major fields, or work for master's and Ph.D. degrees in their specialties. And beyond these are the variety of workshops and training sessions developed throughout the state for adults and youth by College of Agriculture faculty.