

THE CLIMATE OF MENDOCINO COUNTY

Prepared By

MENDOCINO COUNTY

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## FOREWORD

In preparation of this summary, consideration has been given to all available weather records, including not only those within the county, but also those from adjoining counties. Most of the reports are those provided by the Cooperative Climatological Network of the U.S. Weather Bureau, but other agencies have provided helpful data.

Tabulated values in the tables should be used with some caution, since data are from records of different lengths and cover different years. For these reasons, comparisons between stations may be made in general terms, but not in precise detail. The maps are generalized, and cannot show the detailed patterns that actually exist.

Thanks are due the observers who have faithfully measured and recorded weather conditions through the years. Their records made possible a summary such as this. It is hoped that the information presented here will be helpful to many segments of industry, commerce, and agriculture as Mendocino County continues to develop its remarkable potential.

## ACKNOWLEDGEMENTS

Special recognition goes to Sandy Barnett who while working on this project under CETA entitlement accomplished many days of drudgery with adding machine and calculator with a smile.

Thanks also to John Schwabe and Tom Johnsen, accomplished cartographers, for their work in putting the illustrations together in an interesting and professional way.

Observations supplied by the U.S. Corps of Engineers at Lake Mendocino represent valuable and heretofore unpublished information.

Similarly, information provided by the University of California Hopland Field Station provides a unique look at the effect of elevation on climate in a given location.

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## THE CLIMATE OF MENDOCINO COUNTY

The climate of Mendocino County can be characterized by the term "mild". There is little temperature range in the vicinity of the coast, but a moderate range is experienced in inland valleys. Extremes of temperature at inland points range from lows of 10° to 20° to highs of 110 or more, while coastal areas have ranges from the 20's to the 80's.

This is an area of considerable rainfall, with annual totals ranging from slightly less than 50 inches to more than 80 inches. Most of the precipitation falls during the winter part of the year, and only at higher elevations is there substantial snowfall.

The moderate temperatures result in fairly low evaporation rates for this latitude. Relative humidity readings average fairly high along the coast 70% to 90% being typical values. They drop to moderate values over inland areas during the summer, with daytime readings falling to around 30% on the average.

Winds along the coast are persistent during the summer, and occasionally become strong over the entire area during the winter. Much of the County, however, experiences only light winds during most of the year. Sunshine averages 45% to 65% throughout the year along the coast and during winter and spring over inland areas, but increases to 80% inland during the summer and fall.

### TERRAIN

Mendocino County extends approximately 80 miles north and south along the coast bordering the Pacific Ocean. It varies from 30 to 50 miles in width, and is mountainous over the entire area. Within 20 miles of the ocean the land rises to approximately 3,000 feet in a series of ranges that parallel the coast, then drops to lower elevations in the Eel River and Russian River valleys.

These narrow and irregular valleys are at 1500 to 2000 feet elevation in the central part of the county, and drop to near 500 feet at the points where the rivers leave the county. The Eel

flows northward, draining the northern one-half of the county, while the Russian flowing southward, drains the southern one-half.

East of these streams the land rises again to around 4000 feet along much of the eastern county line, with Anthony Peak, near the northwest corner, reaching to 6963 feet. Most of the ridges are oriented in a north-northwest, south-southeast direction. Several smaller streams flow westward to the ocean on the west side of the county.

## AREA CLIMATES

Four general area climates can readily be identified in Mendocino County ranging from the coastal bench completely dominated by the influence of the Pacific Ocean to the northern interior climate which is virtually free of coastal influence and has a continental weather pattern.

The four areas have been designated as: Maritime, Coastal, Transitional and Interior and an understanding of them will provide a good overview of climate in Mendocino County.

Many native plants are closely associated with area climates and in general each area climate has a distinctive complement of plants.

Maritime: This is a narrow strip a few hundred yards to six or seven miles inland from the ocean, which is dominated day and night, winter and summer, by ocean influence. There are narrow, daily and seasonal temperature changes. Temperatures seldom reach freezing, even in mid winter, but the summer temperatures are low, and heat accumulations are not sufficient to support most deciduous fruits, wine grapes & some of the warm season vegetables.

Coastal: This climate is continuous from north to south. It might generally be called the Redwood Belt. It lies inland from the Maritime Zone, and varies from 8 to 30 miles in depth. Direct ocean influence diminishes with the distance inland. Both daily and seasonal temperature fluctuations increase with the distance inland. Summer fog decreases at the inland edge of the area where the direct temperature-modifying effect of the ocean is evident 75 to 85 percent of the time. Ocean influence rarely pushes over the second or third 2500 foot ridge and is usually stopped by a single abrupt 3500 to 4000 foot

range. Thus, the inland edge of the coastal area-climate is established.

Transitional: Inland from the Coastal area climate—in fact, between the coastal and interior area climates — lies an area which may be coastal in character part of the day, or for a week or a month. The climate may then be dominated for various periods by air masses characteristic of the interior. Within the zone the degree of coastal influence is greatly affected by topography. The entire Russian River watershed, which includes the major grape, fruit & irrigated pasture growing areas of Mendocino County, are within the Transitional Zone. The valley floors in this zone present an almost certain spring frost hazard. Cold air, developed by localized spring radiation frost conditions, is heavy, and drains from higher areas into the valleys, and seeks the lowest areas within the valley. Down-canyon air movement may be sufficient to provide air mixing, which modifies the frost hazard.

Any elevation surrounding the larger valleys is helpful and where adequate soils exist at elevations of 500 feet or more above the valley floor, substantial reduction in frost hazard is realized.

Although elevation immediately surrounding the larger valleys provides some localized frost benefit, the general effect of additional elevation within the entire zone is to produce a shorter growing season and a greater frost hazard.

Round Valley has been placed on the inland edge of the Transitional Area-climate, but this placement is somewhat arbitrary. The valley is virtually surrounded by relatively high mountain masses. The heat summation in Round valley, relative to wine grape production,

places it a low Region III, derived almost entirely without coastal influence.

Interior: Only a relatively small portion of Mendocino County in the Northwest corner has an area-climate dominated by continental air at least 85 percent of the time.

Daily and seasonal temperature fluctuations are relatively wide. The air is characteristically dry and warm in summer. The growing season is short and characterized by cool spring and fall weather and warm summers.

#### TEMPERATURE

Winter temperatures are moderate throughout the area, while summer readings are cool along the coast, and moderately warm in interior valleys. The average annual temperature ranges from 52° near the coast to around 60° in the south end of the Russian River valley. The higher value in the valley reflects both the warm summer readings and the relatively warm winter temperatures.

Afternoon temperatures in July climb into the lower and middle 90's over the eastern one-half of the county, but progressively lower readings are found nearer the coast. The cool water of the Pacific results in July average maximum readings in the low 60's along the immediate coast.

Extreme high readings have reached 115° at some of the warmer inland points, but coastal values are around 88° to 90°. The mountainous terrain and generally clear skies over inland areas permit temperatures to fall rapidly after dark during the summer, and mean minimum readings in July are in the lower 50's at most points.

Afternoon readings in January average from 50° to 56° over most of the county, with minimums at night dropping to 30° to 40°, the lowest readings occurring in the mountain valleys. The coldest weather can be expected following a

strong flow of air from the north. Minimums of 6° have been reported under these conditions, although most reporting points in the interior have reported all-time lows of 10° to 20°, and at coastal points the lowest readings have been in the middle 20's.

#### FREEZE DATA

Freezing temperatures are observed every year at inland points, but not every year along the coast. The average date of the last reading of 32° or lower in the spring is around the middle of February along the coast, and as late as the early part of May in the northeast corner of the county.

The first 32° reading in the fall is as early as mid October in the northeast, and as late as mid December on the coast. The 37° growing season, based on these dates, is around 150 days in the northeast, increasing to 300 days near the ocean.

#### CUMULATIVE HEAT UNITS FOR GRAPE PRODUCTION

The major consideration in fitting grape varieties to the climate has traditionally been the accumulation of heat units during the growing season, April to October. The heat units used to describe the Grape Regions are called degree days. Five grape-growing regions have been designated in California, based on the accumulated heat units. The three cooler regions occur in Mendocino County.

Region I Less than 2500 degree days  
Region II 2501 to 3000 degree days  
Region III 3001 to 3500 degree days

Table 4 includes the average monthly and annual degree days for the various locations within the county, where climatic records are available.

#### PRECIPITATION

Precipitation in Mendocino County is concentrated in the winter half of the



year, 85% to 90% of the annual total falling in the six months from October through May. Summer showers are infrequent, though more common in the higher mountains than at low elevations. Annual totals are less than 50 inches over most of the county, but increase in the northern mountains near the coast to more than 80 inches.

Some indication of the variability from year to year is given in Table 6. The figures suggest that as often as once in 20 years the annual total will be around 20 inches in some areas, and will be less than 50 inches in the high-rainfall area of the northwest. A wet year will provide more than 50 inches in all areas, and more than 60 inches over much of the county, increasing to 120 inches in the area of heaviest rainfall; this pattern may occur as often as once in 20 years.

Maximum precipitation intensities in one year out of two will amount to .60 to .80 inch per hour, 2 to 2.75 inches in six hours, and 3 to 6 inches in 24 hours. As often as once in 100 years these values will reach 1.40 to 1.90 inches per hour, 4 to 6 inches in six hours, and 7 to 12 inches in 24 hours.

Snowfall is very light at low elevations in the county, but builds up in the mountains. Some of the higher elevations report seasonal totals in excess of 20 inches. In these areas snowfall is not uncommon as early as November and as late as April, although the bulk of the fall is during the period from December through March.

In some mountain valleys, storms may bring 5 to 10 inch falls of snow, but seldom does the snow remain on the ground for more than a few days at a time.

## EVAPOTRANSPIRATION

The term evapotranspiration refers to the total transfer of moisture from the soil to the air in a field growing a well established crop. Some of the water loss is by evaporation from the surface of the soil, while other moisture is carried upward and evaporated from the leaves and other surface of the plants. Relationships have been established between temperature and evapotranspiration, taking into account the latitude and time of year. <sup>1/</sup>

These computed values of evapotranspiration are only approximate, but they provide an estimate of the water use of a growing crop. The figures, in turn, provide a means of comparing the potential crop production of various areas, as limited by climate, since the production of dry matter in a plant is rather directly related to the amount of moisture moving through the plant.

Studies show that in Mendocino County a cover crop could make use of from 26 to 32 inches of moisture in the course of a year, the larger values being limited to the lower Russian River area. Based on a 32° growing season, the potential water use would range from 26 to 27 inches during the growing season.

On the basis of these computations, it is possible to estimate the average date, when range grasses stop growing. This date ranges from late June to early July over most of Mendocino County.

## EVAPORATION

Table 9 gives accumulated evaporation data collected by the U.S. Corps of Engineers at Lake Mendocino and represents the only such record available from Mendocino County.

<sup>1/</sup> -----  
Thorntwaite, C.M., and J.R. Mather, THE WATER BALANCE. Drexel Institute of Technology, Laboratory of Climatology, Publications in Climatology, Volume VIII, Number 1. Centerton, New Jersey (1955).

## RELATIVE HUMIDITY

There are no summarized humidity data for Mendocino County, but on the basis of other available reports, it would appear that in the vicinity of the coast, readings remain high throughout most of the year. Averages of 90% or higher are typical of the night hours, except during some of the fall months, when figures will be around 80%.

Afternoon values will average around 70% to 80%, with the lower values observed during the fall. Inland, the night readings will average 90% during the winter, but they will drop to around 60% in the fall. Daytime readings range from 80% in winter to 30% in the fall.

### WIND

Wind observations are available from Fort Bragg and Point Arena, but no wind data have been summarized for inland points. The orientation of the ridges, the location of the county in proximity to the west coast, and the prevailing pressure patterns combine to give an air flow that is usually from the northwest or from the southeast. Both Fort Bragg and Point Arena report winds from one of these two quadrants 80% to 85% of the time. Local exposure, however, is responsible for marked variations in wind within short distances, particularly in mountainous areas.

Wind speeds inland are usually light, but exposed headlands and coastal valleys experience persistent moderate wind during much of the summer. At Point Arena, for example, wind of 16 to 31 mph is reported 51% of the time, and 32 to 47 mph 4% of the time in August. However, the strongest winds are usually associated with migrant storms of winter as they move across the area.

Fort Bragg reports winds from the northwest and the southeast quadrants of equal frequency, though the average speed from the northwest is slightly

greater than that from the southeast. At Point Arena the wind blows almost twice as many hours from the northwest as from the southeast, and the average wind speed is half again as great from that direction.

Wind in interior parts of the county can be expected to reach speeds of 40 mph as often as once every two years, and increase to around 80 mph once in 50 years. Exposed areas along the coast and on ridges will probably receive more wind than this.

### SUNSHINE AND CLOUDINESS

Sunshine along the coast averages around 45% to 50% during the winter, and around 60% to 65% during the rest of the year. Inland the winter figures are about the same as on the coast, but during the summer and fall, sunshine increases to around 80%.

Fog in coastal areas reaches a maximum in July and August, when it may be observed 15% to 18% of the time. The period of least fog is January and February. Precipitation is reported at coastal points from 20% to 30% of the time in winter months, and less than 1% of the time during mid summer.

Table 1

WEATHER REPORTING STATIONS USED IN THIS SUMMARY

<u>Station</u>	<u>County</u>	<u>Elev.</u>	<u>Lat.</u>	<u>Long.</u>	<u>S. T. R.</u>	<u>Temp.</u>	<u>Years of Record</u>			
							<u>Frost</u>	<u>PET</u>	<u>Pcpn.</u>	<u>Snow</u>
Alderpoint	Humboldt	435	40 11	123 36	27 3S 5E	32	18	17	35	20
Branscomb 3 NW	Mendocino	1480	39 42	123 39	---	---	---	---	17	---
Branscomb	Mendocino	2000	39 39	123 37	--- 21N 16W	18	20	18	39	21
Boonville Hwy. Maint.	Mendocino	340	39 01	123 22	1 14N 13W	---	---	---	17	---
Cloverdale 3 SSE	Sonoma	320	38 46	122 59	29 11N 10W	30	30	30	30	30
Cloverdale 11 W	Sonoma	1750	38 47	123 13	---	---	---	---	22	---
Covelo	Mendocino	1385	39 47	123 15	12 22N 13W	35	20	20	35	25
Covelo Eel River R.S.	Mendocino	1514	39 50	123 05	28 23N 11W	---	---	---	20	6
Cummings	Mendocino	1324	39 50	123 38	21 23N 16W	---	---	---	45	30
Dos Rios	Mendocino	927	39 43	123 21	31 22N 13W	---	---	---	45	30
Fort Bragg	Mendocino	80	39 27	123 48	6 18N 17W	42	26	26	45	30
Fort Bragg Aviation	Mendocino	68	39 27	123 48	--- 18N 17W	21	20	20	21	21
Garberville	Humboldt	340	40 06	123 48	24 4S 3E	---	---	---	12	11
Hearst (near)	Mendocino	1800	39 29	123 09	23 19N 12W	---	---	---	6*	---

\* Short Record adjusted to long-term values.

Table 1 (Cont'd)

<u>Station</u>	<u>County</u>	<u>Elev.</u>	<u>Lat.</u>	<u>Long.</u>	<u>S. T. R.</u>	<u>Temp.</u>	<u>Years of Record</u>						
							<u>Frost</u>	<u>PTT</u>	<u>Pcpn.</u>	<u>Snow</u>			
Hopland Field Sta. U.C.													
Headquarters 800'	Mendocino	800	39 --	123 05	8 13N 11W	10	--	--	10	--			
Coon Lake 1700'	Mendocino	1700	39 01	123 04	4 13N 11W	10	--	--	10	--			
Orchard Pasture 2900'	Mendocino	2900	39 02	123 04	33 14N 11W	10	--	--	10	--			
Hopland Largo Station	Mendocino	550	39 01	123 07	-- 13N 12W	--	--	--	22	22			
Hopland 8 NE	Lake	2510	39 01	123 00	32 14N 10W	--	--	--	22	--			
Hopland Stock Farm	Mendocino	500	38 58	123 06	-- -- --	--	--	--	10	--			
Hullville 3.5 NW	Lake	2250	39 27	123 00	5 18N 10W	30	30	30	30	30			
Kelseyville	Lake	1385	38 59	122 50	14 13N 9W	--	--	--	30	30			
Lake Mendocino	Mendocino	784	39 12	123 10	34 16N 12W	17	--	17	17	--			
Lake Mountain	Trinity	3164	40 01	123 24	-- -- --	--	--	--	21	--			
Lake Pillsbury	Lake	1900	39 25	122 59	14 18N 10W	--	--	--	7*	--			
Laytonville	Mendocino	1640	39 42	123 29	1 21N 15W	--	--	--	20	--			
Laytonville #2	Mendocino	1660	39 42	123 28	12 21N 15W	--	--	--	7*	--			
Navarro 1 NW	Mendocino	220	39 10	123 34	-- -- --	--	--	--	3*	--			
Point Arena	Mendocino	197	38 55	123 42	12 12N 17W	21	11	6*	35	--			
Potter Valley 3 NNW	Mendocino	1020	39 22	123 07	6 17N 11W	--	--	--	8*	--			
Potter Valley 3 SE	Mendocino	1100	39 18	123 04	27 17N 11W	--	--	--	9*	--			

\* Short Record adjusted to long-term values.

Table 1 (Cont'd)

<u>Station</u>	<u>County</u>	<u>Elev.</u>	<u>Lat.</u>	<u>Long.</u>	<u>S. T. R.</u>	<u>Temp.</u>	<u>Years of Record</u>				
							<u>Frost</u>	<u>PET</u>	<u>Pcpn.</u>	<u>Snow</u>	
Potter Valley P.H.	Mendocino	1014	39 22	123 08	6 17N 11W	36	23	21	45	25	
Redwood Valley	Mendocino	718	39 16	123 12	9 16N 12W	--	--	--	20	--	
Ukiah	Mendocino	623	39 09	123 12	-- 15N 12W	45	30	30	45	30	
Ukiah 4 W	Mendocino	1550	39 09	123 16	15 15N 13W	--	--	--	18	17	
Upper Lake R.S.	Lake	1347	39 10	122 55	7 15N 9W	23	20	20	30	--	
Wheeler	Mendocino	50	39 53	123 55	6 23N 18W	8*	9	8*	9*	9	
Willits	Mendocino	1360	39 22	123 20	32 18N 13W	--	--	--	30	4	
Willits 1 NE	Mendocino	1348	39 25	123 20	18 18N 13W	16	--	--	16	--	
Willits How. Forest R.S.	Mendocino	1925	39 21	123 19	-- -- -- --	12	12	12	18	12	
Yorkville	Mendocino	1100	38 55	123 16	2 12N 13W	--	--	--	21	--	

\*Short Record adjusted to long-term values.

Table 2

## TEMPERATURE MEANS AND EXTREMES

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
<u>ALDERPOINT</u>													
Highest	87.5	81.0	88.0	98.0	102.0	108.0	111.0	114.0	113.0	102.0	91.0	78.0	114.0
Mean Max.	53.9	59.9	62.5	68.0	74.7	81.3	91.1	90.4	87.1	74.7	61.4	53.4	71.4
Mean	44.7	48.3	50.6	55.6	60.1	65.4	72.0	71.4	67.8	60.6	51.1	45.2	57.6
Mean Min.	35.5	37.7	38.7	41.9	45.4	49.6	52.7	52.4	48.5	44.4	41.8	37.0	44.7
Lowest	16.0	19.0	25.0	21.0	32.0	32.0	40.0	40.0	31.0	24.0	22.0	9.0	9.0
Precipitation	10.21	7.44	6.05	3.29	1.65	.53	.02	.36	.59	3.61	6.67	10.05	49.82
<u>BRANSCOMB</u>													
Highest	82.0	80.0	94.0	87.0	97.0	100.0	104.0	104.0	101.0	98.0	82.0	79.0	104.0
Mean Max.	52.1	54.8	58.0	63.4	68.0	75.3	83.7	83.7	78.0	72.2	61.1	54.0	67.0
Mean	43.0	44.5	45.8	49.7	53.2	59.5	66.2	66.0	62.0	57.0	49.3	43.9	53.3
Mean Min.	33.0	33.6	33.8	36.3	38.7	43.1	49.0	48.5	45.8	41.7	36.8	33.2	39.5
Lowest	16.0	17.0	20.0	23.0	26.0	32.0	38.0	31.0	32.0	26.0	23.0	18.0	16.0
Precipitation	16.90	11.75	9.22	5.69	2.23	.91	.08	.25	1.03	4.01	13.20	14.55	79.88
<u>CLOVERDALE 3 SSE</u>													
Highest	81.0	84.0	88.0	96.0	103.0	109.0	110.0	111.0	113.0	104.0	91.0	83.0	113.0
Mean Max.	57.2	61.5	66.5	72.3	78.9	86.2	92.2	91.6	88.8	78.4	67.5	58.4	75.0
Mean	47.2	50.2	54.1	58.3	63.5	69.4	72.9	71.7	70.3	63.3	55.0	48.7	60.4
Mean Min.	37.1	39.4	41.7	44.2	49.8	52.5	53.6	51.8	51.6	48.2	42.4	39.0	45.9
Lowest	20.0	25.0	28.0	29.0	35.0	39.0	40.0	37.0	39.0	28.0	26.0	19.0	19.0
Precipitation	9.02	7.27	4.84	2.97	1.23	.46	.03	.09	.35	2.38	4.10	7.94	40.50
<u>COVELLO</u>													
Highest	89.0	79.0	85.0	93.0	103.0	108.0	111.0	110.0	114.0	102.0	88.0	75.0	114.0
Mean Max.	51.3	56.2	61.3	67.8	76.5	84.4	94.0	93.0	88.6	75.2	61.8	51.4	72.7
Mean	40.4	44.6	47.7	52.8	59.2	66.7	73.7	71.1	67.6	57.8	47.4	41.2	55.4
Mean Min.	29.5	33.0	34.2	37.7	41.8	47.0	51.2	49.2	45.6	38.4	33.8	31.0	39.2
Lowest	7.0	10.0	18.0	17.0	27.0	31.0	39.0	37.0	28.0	17.0	14.0	-9.0	-9.0
Precipitation	7.51	6.35	5.31	2.34	1.07	.46	.07	.18	.53	2.40	5.35	7.77	40.24

TEMPERATURE MEANS AND EXTREMES

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
<b>FORT BRAGG</b>													
Highest	76.0	78.0	77.0	78.0	90.0	86.0	77.0	79.0	87.0	84.0	92.0	81.0	90.0
Mean Max.	56.0	56.9	57.5	59.1	61.2	63.4	63.8	64.3	65.5	63.5	60.3	57.3	60.7
Mean	48.7	48.8	49.7	51.1	53.6	56.1	56.6	56.8	57.3	55.3	52.1	49.2	53.9
Mean Min.	39.5	40.6	41.2	43.2	46.0	48.7	49.3	49.4	49.1	47.0	43.7	41.1	45.0
Lowest	24.0	28.0	28.0	31.0	29.0	39.0	41.0	37.0	38.0	31.0	29.0	23.0	23.0
Precipitation	7.48	5.81	5.15	2.89	1.31	.56	.08	.19	.42	2.75	4.91	7.12	38.71
<b>FORT BRAGG AIRWAY</b>													
Highest	75.0	73.0	76.0	82.0	83.0	86.0	82.0	81.0	87.0	83.0	83.0	78.0	87.0
Mean Max.	55.9	56.9	57.6	58.6	60.9	63.2	63.9	64.1	65.7	63.4	60.3	56.8	60.6
Mean	47.7	48.5	49.1	50.3	52.9	55.1	55.8	56.0	56.6	54.5	51.5	48.7	52.2
Mean Min.	39.4	40.0	40.5	42.0	44.8	47.0	47.7	47.8	47.5	45.6	42.7	40.5	43.8
Lowest	24.0	27.0	26.0	28.0	32.0	35.0	36.0	35.0	33.0	31.0	28.0	27.0	24.0
Precipitation	7.83	6.28	5.41	2.90	1.75	.62	.05	.13	.41	3.14	4.91	7.10	40.53
<b>HOPLAND FIELD STATION</b>													
<b>HEADQUARTERS 800'</b>													
Highest	64.9	70.8	80.2	81.6	93.9	102.5	106.0	105.4	102.6	92.3	75.7	61.4	106.0
Mean Max.	53.3	57.7	61.7	66.7	77.6	84.6	92.1	92.5	88.4	75.5	61.1	52.0	72.0
Mean	44.6	48.8	50.9	52.3	61.9	67.0	72.3	73.3	69.8	59.1	50.0	53.3	58.7
Mean Min.	30.9	36.8	37.8	38.9	44.1	49.4	52.5	52.3	49.0	43.6	38.9	34.5	42.4
Lowest	22.6	26.6	27.7	29.9	33.8	40.3	45.2	44.2	41.2	32.2	29.3	22.7	22.6
Precipitation	10.01	5.41	5.26	1.55	.34	.23	.11	.31	.26	2.08	6.86	8.64	41.11
<b>COON LAKE 1700'</b>													
Highest	60.9	61.3	66.2	67.1	80.9	88.0	92.1	91.1	88.0	88.6	74.9	63.4	92.1
Mean Max.	58.7	60.3	62.0	66.4	81.7	88.4	98.8	96.0	93.8	79.0	66.8	58.5	76.9
Mean	44.8	47.1	47.4	49.0	59.1	65.2	73.7	73.5	70.8	58.4	50.4	44.1	57.0
Mean Min.	39.5	40.8	39.0	38.2	36.9	51.4	57.3	58.0	56.7	49.5	43.8	38.6	46.9
Lowest	24.0	26.9	26.5	27.6	30.9	38.3	42.1	42.6	40.6	36.7	32.2	27.6	24.0
Precipitation	10.00	5.47	5.59	1.70	.45	.30	.13	.48	.46	2.14	6.07	8.54	41.33

Table 2 (Cont'd)

## TEMPERATURE MEANS AND EXTREMES

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
<u>HOPLAND FIELD STATION</u>													
<u>ORCHARD 2900'</u>													
Highest	65.0	62.6	68.6	69.5	82.7	91.3	95.0	93.5	89.9	81.7	70.5	62.3	95.0
Mean Max.	49.5	49.9	51.6	55.5	67.0	74.5	82.5	81.9	77.9	64.1	54.6	49.6	63.2
Mean	43.1	44.5	45.1	50.0	58.1	66.7	73.8	72.1	68.2	56.4	48.0	43.3	56.8
Mean Min.	38.5	39.0	39.2	40.5	49.1	56.7	63.0	62.2	58.5	48.7	42.3	38.1	48.0
Lowest	26.4	30.5	29.6	31.5	34.9	40.2	52.4	49.3	46.1	37.7	33.2	27.7	26.4
Precipitation	12.06	6.33	6.98	2.23	.50	.40	1.65	.48	.49	3.78	8.59	9.06	52.55
<u>HULLVILLE 3.5 NW</u>													
Highest	80.0	85.0	92.0	94.0	99.0	108.0	109.0	112.0	107.0	100.0	93.0	84.0	112.0
Mean Max.	51.1	55.5	61.9	67.4	74.1	82.2	91.2	90.8	83.7	75.2	62.7	52.4	70.7
Mean	40.7	43.7	47.9	52.1	57.7	64.3	71.3	70.4	64.7	58.1	48.6	41.5	55.1
Mean Min.	30.3	31.8	34.0	36.8	41.3	46.5	51.3	50.0	45.6	41.0	34.5	30.5	39.5
Lowest	7.0	13.0	15.0	22.0	24.0	25.0	34.0	31.0	26.0	21.0	17.0	5.0	5.0
Precipitation	8.77	10.29	8.19	4.84	3.00	1.44	.05	.05	.05	.65	2.04	5.55	45.48
<u>LAKE MENDOCINO</u>													
Highest	73.1	77.1	83.1	87.8	95.7	101.4	111.4	103.0	102.3	93.9	81.1	67.0	111.4
Mean Max.	50.9	64.2	55.7	67.4	74.9	79.5	97.1	86.8	89.2	74.3	64.6	56.8	71.7
Mean	46.3	48.1	52.6	55.7	62.3	66.3	71.6	71.7	64.9	60.6	48.6	45.1	58.4
Mean Min.	30.7	37.1	36.6	40.6	45.5	45.9	54.7	51.7	44.9	42.3	38.0	31.7	41.6
Lowest	23.2	28.3	29.6	31.7	35.7	39.4	46.4	44.4	40.5	32.9	28.0	22.4	22.4
Precipitation	7.66	4.80	4.94	2.32	.68	.16	.07	.25	.35	2.07	5.50	7.14	35.94
<u>POINT ARENA</u>													
Highest	75.0	81.0	74.0	78.0	89.0	86.0	80.0	91.0	95.0	92.0	79.0	73.0	95.0
Mean Max.	55.7	57.0	57.5	58.8	61.3	63.5	64.9	66.0	67.2	65.0	60.5	56.5	61.1
Mean	47.8	49.4	49.5	50.4	53.3	55.8	57.1	58.0	56.0	55.8	52.2	48.5	53.0
Mean Min.	40.1	41.6	41.4	42.0	45.1	48.1	49.3	50.0	49.2	46.5	43.5	40.4	44.8
Lowest	22.0	25.0	27.0	26.0	31.0	34.0	39.0	41.0	36.0	33.0	27.0	24.0	22.0
Precipitation	8.09	6.13	5.16	3.32	1.19	.36	.06	.23	.49	2.76	5.12	7.24	39.38



TEMPERATURE MEANS AND EXTREMES

<u>STATION</u>	<u>JAN.</u>	<u>FEB.</u>	<u>MAR.</u>	<u>APR.</u>	<u>MAY</u>	<u>JUNE</u>	<u>JULY</u>	<u>AUG.</u>	<u>SEPT.</u>	<u>OCT.</u>	<u>NOV.</u>	<u>DEC.</u>	<u>ANNUAL</u>
<u>POTTER VALLEY PH.</u>													
Highest	87.0	87.0	90.0	93.0	102.0	108.0	109.0	109.0	111.0	101.0	90.0	78.0	111.0
Mean Max.	57.1	61.1	61.2	70.3	78.8	85.6	94.4	93.3	90.0	78.7	65.3	57.7	74.7
Mean	45.2	48.2	50.6	55.5	61.2	67.3	73.6	72.6	69.0	60.5	51.3	46.0	58.4
Mean Min.	33.3	35.4	36.7	39.8	43.5	48.5	52.8	51.2	47.9	42.4	37.4	34.4	42.0
Lowest	14.0	15.0	20.0	22.0	29.0	34.0	38.0	39.0	33.0	21.0	22.0	14.0	14.0
Precipitation	9.45	6.82	5.36	2.87	1.39	.58	.07	.16	.11	2.68	5.44	8.87	44.40
<u>UKIAH</u>													
Highest	87.0	86.0	90.0	97.0	105.0	111.0	112.0	111.0	115.0	104.0	92.0	80.0	115.0
Mean Max.	57.2	61.5	64.7	70.7	78.2	84.7	93.5	93.0	85.6	78.3	65.8	57.6	74.2
Mean	46.1	49.4	52.2	56.0	62.1	67.7	73.7	72.7	69.4	61.4	52.5	47.9	59.1
Mean Min.	35.1	37.3	39.7	41.2	46.0	50.7	53.7	52.5	53.0	44.3	39.1	36.2	44.1
Lowest	14.0	21.0	24.0	24.0	32.0	37.0	41.0	40.0	35.0	24.0	21.0	13.0	13.0
Precipitation	8.02	5.93	4.46	2.41	.98	.40	.06	.11	.30	1.98	4.42	7.53	36.60
<u>UPPER LAKE R.S.</u>													
Highest	76.0	77.0	85.0	92.0	100.0	109.0	106.0	108.0	110.0	99.0	87.0	78.0	110.0
Mean Max.	54.4	58.2	62.8	69.1	75.7	84.9	93.4	91.6	88.1	77.0	65.5	56.9	73.1
Mean	43.3	46.0	49.0	53.4	58.4	65.7	71.3	69.2	66.6	58.0	50.1	44.1	56.3
Mean Min.	32.2	33.8	35.1	37.6	41.1	46.4	49.1	46.7	45.1	39.0	34.7	31.9	39.4
Lowest	14.0	17.0	20.0	24.0	29.0	30.0	33.0	33.0	28.0	20.0	17.0	11.0	11.0
Precipitation	7.14	6.49	4.44	2.39	1.39	.44	.05	.10	.35	1.99	3.73	6.16	34.67
<u>WHEELER</u>													
Highest	65.0	68.0	75.0	75.0	87.0	84.0	80.0	75.0	88.0	80.0	80.0	71.0	88.0
Mean Max.	53.8	55.1	56.0	58.1	61.7	63.9	64.9	64.3	66.0	62.2	58.9	55.8	60.1
Mean	47.3	48.0	48.5	50.7	54.1	56.6	57.6	57.3	58.4	55.2	52.1	49.4	53.0
Mean Min.	40.8	40.9	41.0	43.3	46.4	49.3	50.2	50.3	50.7	48.1	45.3	42.9	45.8
Lowest	25.0	28.0	31.0	32.0	35.0	40.0	44.0	42.0	42.0	36.0	32.0	30.0	25.0
Precipitation	12.83	7.65	5.32	3.56	1.52	1.31	.02	.58	.28	4.16	6.35	9.47	53.05

Table 2 (Cont'd)

TEMPERATURE MEANS AND EXTREMES

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
<u>WILLITS HOWARD FOREST R.S.</u>													
Highest	66.0	74.0	83.0	89.0	95.0	103.0	102.0	105.0	105.0	98.0	80.0	64.0	105.0
Mean Max.	49.4	53.4	56.3	64.4	70.0	77.5	86.2	85.6	82.6	71.5	57.5	49.7	67.0
Mean	40.7	43.7	45.6	51.6	56.3	62.6	68.9	68.0	65.4	57.4	47.7	41.6	54.1
Mean Min.	32.0	33.9	34.9	38.8	42.6	47.6	51.5	50.3	48.3	43.3	37.9	33.6	41.2
Lowest	12.0	17.0	22.0	24.0	30.0	30.0	41.0	35.0	32.0	25.0	25.0	6.0	6.0
Precipitation	9.43	8.22	6.57	3.37	1.95	.61	.08	.08	.61	3.01	5.68	9.12	48.73
<u>WILLITS 1 NE</u>													
Highest	72.0	78.0	83.0	94.0	98.0	103.0	108.0	101.0	104.0	95.0	90.0	73.0	108.0
Mean Max.	54.8	59.8	60.4	63.4	73.3	79.1	86.0	86.0	84.1	74.5	60.6	53.3	69.6
Mean	43.8	47.5	48.1	50.0	57.3	62.1	66.6	66.5	63.6	57.1	49.3	43.7	54.6
Mean Min.	32.8	35.3	35.9	36.6	41.2	44.9	47.2	46.8	43.1	39.6	37.9	34.1	39.6
Lowest	14.0	22.0	22.0	27.0	28.0	31.0	34.0	35.0	28.0	17.0	23.0	5.0	5.0
Precipitation	11.23	7.84	7.35	4.00	1.75	.60	.07	.11	.79	2.71	6.93	10.53	54.05

Table 3

PROBABILITY OF RECEIVING FREEZING TEMPERATURE AFTER GIVEN DATES IN SPRING  
OR BEFORE GIVEN DATES IN FALL

Station	T°	10%	20%	30%	40%	50%	60%	70%	80%	90%	GS
Alderpoint	32 S	5/19	5/6	4/26	4/18	4/10	4/4	3/29	3/17	3/4	209
	F	10/7	10/18	10/26	10/31	11/5	11/11	11/16	11/23	12/2	
	28 S	3/8	2/24	2/17	2/10	2/4	1/28	1/22	1/14	1/3	288
	F	10/30	11/5	11/11	11/15	11/19	11/23	11/27	12/3	12/9	
Branscomb	32 S	6/3	5/27	5/22	5/18	5/14	5/10	5/7	5/3	4/26	159
	F	9/13	9/25	10/5	10/13	10/20	10/27	11/4	11/13	11/29	
Cloverdale 3 SSE	32 S	4/5	3/25	3/17	3/9	3/4	2/25	2/19	2/12	2/3	269
	F	11/4	11/13	11/18	11/22	11/28	12/3	12/8	12/14	12/26	
	28 S	2/17	2/9	2/4	1/28	1/22	1/15	1/8	1/3	*	343
	F	12/13	12/20	12/25	#	#	#	#	#	#	
Covelo	32 S	5/26	5/18	5/14	5/9	5/5	5/1	4/27	4/23	4/15	162
	F	9/26	10/3	10/7	10/11	10/14	10/17	10/21	10/25	11/1	
	28 S	4/28	4/20	4/15	4/10	4/5	3/31	3/27	3/21	3/13	206
	F	10/10	10/16	10/21	10/24	10/28	11/1	11/4	11/9	11/14	
Fort Bragg	32 S	3/20	3/11	3/6	3/1	2/24	2/18	2/12	2/2	1/15	292
	F	11/15	11/23	12/1	12/6	12/13	12/21	#	#	#	
	28 S	1/30	1/7	*	*	*	*	*	*	*	365
	F	#	#	#	#	#	#	#	#	#	
Fort Bragg Aviation	32 S	4/19	4/9	4/3	3/28	3/22	3/17	3/11	3/4	2/22	253
	F	10/30	11/7	11/15	11/22	11/30	12/8	12/19	#	#	
	28 S	3/16	2/29	2/19	2/9	1/21	1/20	1/6	*	*	334
	F	11/26	12/11	12/29	#	#	#	#	#	#	
Hullville 3.5 NW	32 S	6/5	5/25	5/18	5/12	5/7	5/2	4/26	4/19	4/10	160
	F	9/14	9/25	10/2	10/8	10/14	10/21	10/27	11/4	11/15	
	28 S	5/22	5/8	4/29	4/21	4/13	4/5	3/28	3/19	3/6	206
	F	10/11	10/20	10/25	11/1	11/5	11/11	11/16	11/23	12/3	
Point Arena	32 S	4/7	3/21	3/9	2/24	2/9	1/18	*	*	*	308
	F	11/23	11/28	12/3	12/7	12/14	12/23	#	#	#	
	28 S	2/4	1/23	1/10	*	*	*	*	*	*	365
	F	12/7	12/30	#	#	#	#	#	#	#	
Potter Valley PH	32 S	5/15	5/6	4/30	4/25	4/21	4/16	4/12	4/6	3/29	192
	F	10/15	10/20	10/24	10/26	10/29	11/2	11/4	11/8	11/14	
	28 S	4/11	4/1	3/26	3/20	3/16	3/10	3/5	2/27	2/18	246
	F	10/24	11/1	11/7	11/12	11/17	11/23	11/28	12/6	12/24	

T° Freeze temperature, °F.  
GS Length of growing season, days

\* Prior to January 1  
# After December 31

Table 3 (Cont'd)

<u>Station</u>	<u>T<sup>o</sup></u>	<u>10%</u>	<u>20%</u>	<u>30%</u>	<u>40%</u>	<u>50%</u>	<u>60%</u>	<u>70%</u>	<u>80%</u>	<u>90%</u>	<u>GS</u>
Ukiah	32 S	4/23	4/13	4/7	4/1	3/26	3/21	3/16	3/8	2/27	225
	F	10/24	10/29	11/2	11/4	11/6	11/9	11/12	11/15	11/24	
	28 S	3/19	3/8	2/28	2/21	2/15	2/8	2/2	1/25	1/17	290
	F	11/4	11/14	11/21	11/26	12/2	12/8	12/14	12/21	12/29	
Upper Lake R.S.	32 S	5/30	5/25	5/20	5/16	5/13	5/9	5/6	5/1	4/15	149
	F	9/19	9/25	10/1	10/5	10/9	10/12	10/17	10/22	10/28	
	28 S	5/7	4/28	4/21	4/15	4/9	4/4	3/29	3/22	3/12	200
	F	10/3	10/11	10/17	10/22	10/26	10/31	11/4	11/11	11/18	
Wheeler	32 S	3/29	3/17	3/8	2/27	2/18	2/9	1/31	1/20	1/1	308
	F	11/22	12/1	12/5	12/15	12/23	12/31	#	#	#	
	28 S	*	*	*	*	*	*	*	*	*	365
	F	#	#	#	#	#	#	#	#	#	
Willits Howard Forest R.S.	32 S	5/15	5/8	5/5	5/1	4/27	4/23	4/19	4/14	4/6	183
	F	10/1	10/11	10/17	10/23	10/27	11/2	11/7	11/14	11/22	
	28 S	4/20	4/10	4/3	3/28	3/22	3/16	3/10	3/2	2/20	253
	F	10/27	11/6	11/14	11/21	11/30	12/6	12/18	12/31	#	

T<sup>o</sup> Freeze temperature, °F

GS Length of growing season, days

\* Prior to January 1

# After December 31

Table 4

TEMPERATURE REPORTING STATIONS USED TO DETERMINE CUMULATIVE HEAT UNITS

<u>STATION</u>	<u>YEARS OF RECORD</u>	<u>ELEVATION</u>	<u>SOURCE</u>
Point Arena	6	197	Weather Bureau Network
Fort Bragg	27	80	Weather Bureau Network
Wheeler	8	50	Weather Bureau Network
Comptche 3 mi W.	3	320	U.C. & Frank Tunzi Cooperating
Branscomb	18	2000	Weather Bureau Network
Philo	9	180	U.C. & James Gowan Cooperating
Boonville <sup>1</sup>	2	350	A. J. Winkler data 1944 & 1945
Boonville <sup>2</sup>	7	350	Unpublished Weather Bureau data
Willits	10	1350	Weather Bureau Network
Howard Forest	12	1929	Weather Bureau - Div. of Forestry
Ukiah <sup>2</sup> 1 mi E.	5	600	U.C. - A. R. Thomas Cooperating
Redwood Valley	5	760	U.C. - Harlan Howard Cooperating
Lake Mendocino	10	780	U.S. Corps of Engineers
Hopland U.C.			
Vineyard	6	560	U.C. Hopland Field Station
Headquarters	10	800	U.C. Hopland Field Station
Coon Lake	10	1700	U.C. Hopland Field Station
Orchard	10	2900	U.C. Hopland Field Station
Potter Valley	21	1014	Weather Bureau Network
Ukiah <sup>1</sup>	30	623	Weather Bureau Network
Covelo	20	1385	Weather Bureau Network

\* \* \* \* \*

Table 4

MONTHLY AND ACCUMULATED DEGREE DAYS  
FOR VARIOUS LOCATIONS IN  
MENDOCINO COUNTY

	<u>APRIL</u>	<u>MAY</u>	<u>JUNE</u>	<u>JULY</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>TOTAL</u>
<u>MARITIME:</u>								
Point Arena	12	102	174	220	248	180	180	1116
Fort Bragg	33	112	183	205	211	219	164	1127
Wheeler	75	149	198	236	226	252	161	1297
<u>COASTAL:</u>								
Comptche	21	239	297	384	366	372	198	1877
Branscomb	69	127	285	502	496	360	217	2056
Philo	30	217	360	496	496	420	248	2267
Boonville 1	96	260	387	456	521	486	316	2522
Boonville 2	141	267	438	580	595	522	363	2906
<u>TRANSITIONAL:</u>								
Willits	21	192	363	508	515	396	229	2224
Howard Forest	96	208	378	586	558	462	229	2517
Ukiah 2	60	254	450	623	632	453	347	2819
Redwood Valley	81	295	453	645	645	501	295	2914
Lake Mendocino	93	264	492	663	682	561	329	3084
Hopland U.C.								
Vineyard	90	341	489	679	676	528	310	3113
Headquarters	69	369	510	691	722	594	281	3236
Coon Lake	-30	282	406	735	729	624	260	3066
Orchard	30	251	501	728	685	546	198	2939
Potter Valley	165	358	519	708	695	570	326	3341
Ukiah 1	180	375	531	735	704	582	353	3460
Covelo	84	285	501	735	630	528	242	3005

California has a wide range of climatic conditions. Its grape-growing areas have been divided into five regions, based on the number of degree-days above 50°F for the period April 1 to October 31, inclusive. Degree days are calculated as follows: If the mean temperature over a five-day period, for example, was 70°F, the summation would be  $(70-50=20) \times 5 = 100$  degree days.

Grape Region Designations:	Region I	Less than 2500 degree days
	II	2501 - 3000
	III	3001 - 3500
	IV	3501 - 4000
	V	4001 or more

Table 5

## AVERAGE MONTHLY AND SEASONAL PRECIPITATION

Station	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Season
Alderpoint	.02	.36	.59	3.61	6.67	10.05	10.21	7.44	6.05	3.29	1.65	.53	49.82
Boonville Hwy. Maint.	.06	.30	.25	2.06	6.65	8.39	9.44	4.73	5.24	2.94	.40	.21	40.68
Branscomb	.11	.03	1.33	4.14	12.42	12.77	17.29	14.45	9.52	5.27	2.57	1.15	81.08
Branscomb 2 NW	.08	.25	1.03	4.01	13.20	14.55	16.90	11.75	9.22	5.69	2.23	.91	79.88
Cloverdale 3 SSE	.03	.09	.35	2.38	4.10	7.94	9.02	7.27	4.84	2.97	1.23	.46	40.50
Cloverdale 11 W	.03	.21	.64	4.00	7.26	10.44	13.78	11.61	8.27	4.50	2.20	.54	63.48
Cordes *	.01	T	2.39	3.31	3.74	4.49	15.02	20.31	7.05	4.48	2.49	.38	63.67
Covelo	.07	.18	.53	2.40	5.35	7.77	7.51	6.35	5.31	2.34	1.07	.46	40.24
Covelo Fel River R.S.	.23	.11	.73	2.00	4.08	7.16	9.14	7.58	4.54	2.86	1.77	.46	40.66
Cummings	.06	.24	.72	4.56	9.29	14.09	15.01	10.60	9.28	4.50	2.49	.78	71.66
Dos Rios	.04	.11	.04	2.55	6.83	10.30	10.02	6.99	5.70	2.20	1.30	.48	47.58
Fort Bragg	.08	.19	.42	2.75	4.91	7.12	7.48	5.81	5.15	2.89	1.31	.56	38.71
Fort Bragg Aviation	.05	.13	.41	3.14	4.91	7.10	7.83	6.28	5.41	2.90	1.75	.62	40.53
Garberville	.01	.10	.85	4.22	6.10	9.80	12.78	9.69	7.38	4.07	2.48	.41	57.89
Hearst (Near) *	.05	.01	.87	1.33	6.07	8.15	12.67	6.81	4.65	3.54	3.27	.58	48.00
Hopland Field Sta.													
Headquarters 800'	.11	.31	.26	2.08	6.86	8.64	10.01	5.41	5.26	1.55	.34	.23	41.10
Coon Lake 1700'	.13	.48	.46	2.14	6.07	8.54	10.00	5.47	5.59	1.70	.45	.30	41.33
Orchard 2900'	1.65	.48	.49	3.78	8.59	9.06	12.06	6.33	6.98	2.23	.50	.40	52.55
Hopland Largo Sta.	.02	.09	.46	2.16	4.03	7.85	7.99	6.94	4.64	2.85	1.21	.45	38.69
Hopland 8 NE	.04	.10	.39	2.53	5.02	7.86	7.76	8.64	5.33	2.85	1.52	.50	42.54
Hopland Stock Farm	.03	T	.30	1.82	3.39	7.85	7.87	8.66	4.59	2.27	1.05	.58	38.91
Hullville 3.5 NW	.05	.05	.05	.65	2.04	5.55	8.77	10.29	8.19	4.84	3.00	1.44	45.48
Kelseyville	.03	.05	.26	1.32	2.38	5.03	4.83	4.41	2.91	1.58	.80	.37	23.97
Lake Mendocino	.07	.25	.35	2.07	5.50	7.14	7.66	4.80	4.94	2.32	.68	.16	35.94
Lake Mountain	.08	.21	.73	4.04	6.87	9.83	10.81	8.51	6.97	3.90	2.69	.82	55.46
Lake Pillsbury *	.07	.08	.30	3.10	7.45	7.73	5.70	6.32	5.89	3.17	1.54	.47	41.82
Laytonville	.05	.15	.56	3.99	6.75	10.23	11.45	8.86	6.76	3.54	1.99	.58	54.91

\* Short record adjusted to long-term values.

Table 5 (Cont'd)

Station	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Season
Laytonville #2 *	.01	T	.48	2.37	5.56	9.01	18.49	8.49	8.51	2.14	2.35	.99	58.40
Navarro 1 NW *	T	.02	.84	.76	6.47	4.09	7.77	8.92	6.84	1.57	1.48	.01	38.77
Pont Arena	.06	.23	.49	2.76	5.12	7.24	8.09	6.13	5.16	3.32	1.19	.36	39.38
Potter Valley 3 NNW *	.12	.15	.95	2.03	4.07	6.84	9.35	8.56	5.15	2.46	1.49	.42	41.59
Potter Valley 3 SE *	.11	.10	.68	1.42	3.37	4.67	7.64	6.21	3.99	2.24	1.16	.43	32.02
Potter Valley P.H.	.07	.16	.11	2.68	5.44	8.87	9.45	6.82	5.36	2.87	1.39	.58	44.40
Redwood Valley	.05	.07	.36	2.14	4.22	6.93	7.61	6.26	4.49	2.42	1.27	.26	36.08
Uklah	.06	.11	.03	1.98	4.42	7.53	8.02	5.93	4.46	2.41	.98	.40	36.60
Uklah 4 W	.06	.03	.63	3.23	5.13	9.28	9.33	10.45	7.05	3.43	2.06	.38	51.06
Upper Lake R.S.	.05	.10	.35	1.99	3.73	6.16	7.14	6.49	4.44	2.39	1.39	.44	34.67
Wheeler *	.02	.58	.28	4.16	6.35	9.47	12.83	7.65	5.32	3.56	1.52	1.31	53.05
Willits	.06	.01	.89	2.69	6.58	10.55	10.92	8.38	7.53	4.21	2.14	.73	54.69
Willits 1 NW	.07	.11	.79	2.71	6.93	10.53	11.23	7.84	7.35	4.00	1.75	.60	54.05
Willits Howard Forest RS													
Yorkville	.08	.08	.61	3.01	5.68	9.12	9.43	8.22	6.57	3.37	1.95	.61	48.73
	.04	.15	.47	3.02	5.32	9.67	10.20	9.01	6.15	3.46	1.53	.44	49.46

\* Short record adjusted to long-term values.



Table 6

ANNUAL PRECIPITATION PROBABILITY  
(Probability of Receiving Less Than Indicated Annual Precipitation)

Station	Probability Inches									
	5%	10%	25%	33%	50%	67%	75%	90%	95%	
Alderpoint	39.0	41.7	46.8	48.9	52.9	57.3	61.4	66.1	70.2	
Branscomb	47.9	53.9	64.9	69.6	79.1	89.2	95.1	110.9	120.6	
Cloverdale 3 SSE	21.3	24.3	29.9	32.2	36.8	41.8	44.7	52.8	57.8	
Cloverdale 11W	36.7	41.9	51.1	54.9	62.9	71.0	75.9	89.2	94.9	
Covelo	25.8	28.7	33.9	36.2	40.4	45.2	47.9	55.1	60.1	
Covelo Eel River R.S.	24.2	27.2	32.4	34.8	39.3	44.2	47.0	54.8	59.3	
Cummings	42.5	47.5	56.9	60.9	69.2	78.2	83.0	96.7	106.0	
Dos Rios	27.4	30.8	37.0	39.7	45.0	50.9	54.3	63.2	68.5	
Fort Bragg	24.5	27.0	31.7	33.6	37.5	41.7	44.0	50.5	54.9	
Fort Bragg Aviation	26.3	29.0	33.6	35.6	39.7	44.0	46.3	52.8	57.1	
Hearst (near) *	31.2	34.3	40.1	42.5	47.3	52.2	55.0	62.9	67.9	
Hopland Largo Station	18.0	21.7	28.5	31.4	37.6	43.9	47.9	59.3	66.4	
Hopland 8 NE	24.2	27.2	32.7	35.0	39.7	44.9	47.9	55.7	60.8	
Hopland Stock Farm	19.9	23.1	29.4	31.6	37.3	43.2	46.6	56.7	62.4	
Hullville 3.5 NW	24.5	38.2	35.2	37.8	43.8	50.1	53.9	64.1	71.0	
Kelseyville	12.5	14.5	18.1	19.7	22.9	26.4	28.3	33.7	37.6	
Lake Mountain	36.5	40.2	46.6	49.3	54.6	60.1	63.1	71.7	77.3	
Lake Pillsbury *	24.8	27.6	33.1	35.5	40.3	45.5	48.4	56.4	61.2	
Laytonville	35.2	38.6	45.0	47.7	53.1	58.8	61.9	70.3	76.7	
Laytonville #2 *	29.3	34.3	43.2	47.5	55.4	64.3	69.2	83.0	92.6	
Navarro 1 NW *	26.5	28.7	32.9	34.7	38.1	41.8	43.8	49.4	52.8	

\* Short record adjusted to long-term values.

Table 6 (Cont'd)

Station	Probability									
	5%	10%	25%	33%	50%	67%	75%	90%	95%	
Point Arena	24.4	27.3	32.7	34.9	39.3	44.3	47.1	54.3	59.8	
Potter Valley 3 NNW *	29.1	31.5	35.8	37.7	41.0	44.5	46.6	52.1	55.4	
Potter Valley 3 SE	23.6	25.2	28.2	29.4	31.8	34.4	35.8	41.1	43.2	
Potter Valley Power House	25.0	28.4	34.9	37.3	42.4	48.1	51.4	60.6	66.1	
Redwood Valley	21.9	24.2	29.2	31.2	35.2	39.8	42.4	49.2	53.8	
Ukiah	20.9	23.3	26.7	29.9	33.9	38.5	41.1	47.6	51.7	
Ukiah 4 W	26.6	32.0	39.4	42.2	48.5	55.0	58.9	69.7	76.2	
Upper Lake R.S.	18.7	22.3	27.7	29.5	34.0	38.6	41.3	49.0	53.6	
Wheeler *	39.7	43.3	48.4	50.2	52.8	56.2	58.8	60.4	64.6	
Willits	22.5	27.1	37.3	41.9	52.1	61.8	68.5	86.9	98.6	
Willits Howard Forest R.S.	31.0	34.3	40.1	42.6	47.5	52.6	55.5	63.4	68.3	
Yorkville	30.4	33.7	39.8	42.2	47.2	52.4	55.6	63.5	68.6	

\* Short record adjusted to long-term values.

Table 7

AVERAGE MONTHLY AND SEASONAL SNOWFALL

<u>Station</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>Season</u>
Alderpoint	0	0.1	0.1	0.3	T	T	T	0.5
Branscomb	0.4	2.7	8.1	4.7	5.1	0.7	0.2	21.9
Cloverdale 3 SSE	0	T	0.1	0.2	T	0	0	0.3
Covelo	0.3	0.4	3.6	1.9	0.4	0.1	0	6.7
Covelo Eel River R.S	0	2.7	2.7	0.3	0.5	T	0	6.2
Cummings	0.1	0.8	3.8	2.0	0.8	0.1	0	7.6
Dos Rios	0	0	0.2	0.1	0	0	0	0.3
Fort Bragg	0	T	T	0	T	0	0	T
Fort Bragg Aviation	T	T	T	T	0	0	0	T
Hopland Largo Station	0	0.4	0.3	0.2	0.2	0	0	1.1
Hullville 3.5 NW	0.1	6.0	11.2	3.7	4.1	0.6	T	25.7
Kelseyville	0	T	0.9	T	T	0	0	0.9
Potter Valley P.H.	0	0.1	0.6	T	T	0	0	0.7
Ukiah	0	0.1	0.8	0.1	T	0	0	1.0
Ukiah 4 W	0.3	0.2	1.3	0.6	0.6	0.1	0	3.1
Wheeler	T	T	T	T	T	0	0	T
Willits	T	T	1.0	1.7	0.3	0	0	3.0
Willits Howard Forest R.S.	0	2.4	6.1	2.9	2.7	0.2	0	14.3

Table 9

AVERAGE MONTHLY EVAPORATION

1959 - 1977

<u>STATION</u>	<u>JAN.</u>	<u>FEB.</u>	<u>MAR.</u>	<u>APR.</u>	<u>MAY</u>	<u>JUNE</u>	<u>JULY</u>	<u>AUG.</u>	<u>SEPT.</u>	<u>OCT.</u>	<u>NOV.</u>	<u>DEC.</u>	<u>ANNUAL</u>
Lake Mendocino *													
Highest	2.77	2.62	4.29	7.56	8.94	11.31	13.69	12.11	8.92	5.52	2.63	5.76	71.84
Average	1.49	1.87	3.33	5.09	7.32	9.78	11.11	9.97	7.73	4.28	1.76	1.31	65.04
Lowest	.75	1.51	2.56	3.68	5.90	8.19	10.15	6.93	6.68	3.08	1.21	.60	43.23

\* Compiled by the U.S. Army Corps of Engineers, Lake Mendocino, James Welcher, Project Superintendent, and Roy Ivansich, Dam Tender.

Table 10

SURFACE WIND SUMMARY

Point Arena, California

Jan. 1937 through Oct. 1942  
Aug. 1941 missing.

Dir.	M.P.H.					Total (all)	Avg. Vel.	Total (4+)	% (4+)
	0-3	4-15	16-31	32-47	48+				
N	78	1175	1121	86	2	2462	15.8	2384	32
NE	112	579	205	15	1	912	11.3	800	10
E	66	207	28	5		306	7.6	240	3
SE	86	920	477	90	8	1581	14.3	1495	20
S	129	495	71	7		702	8.0	573	8
SW	50	132	43	4	1	230	9.4	180	2
W	58	90	18			166	6.9	108	2
NW	80	615	970	136	7	1808	18.3	1728	23
Calm	84					84			9 0
Total	743	4213	2933	343	19	8251	14.1	7508	
%	9 0	51	36	4	*				100

0 Based on total cases 0-3 mph.

\* Less than ½ of 1%

Table 11

SURFACE WIND SUMMARY

Fort Bragg, California

Jan. Feb. Apr. Nov. Dec. 1937  
Jan. 1938 through Nov. 1942

Dir.	M.P.H.					Total (all)	Avg. Vel.	Total (4+)	% (4+)
	0-3	4-15	16-31	32-47	48+				
N	223	460	47			730	6.3	507	10
NE	357	288	8			653	3.8	296	6
E	562	836	19			1417	4.6	855	17
SE	350	772	26			1148	5.5	798	16
S	144	344	31			519	6.3	375	7
SW	179	468	13	2		662	5.6	483	10
W	198	321	5			524	4.6	326	7
NW	422	1285	77	1		1785	6.4	1363	27
Calm	174					174			34 Ø
Total	2609	4774	226	3		7612	5.4	5003	
%	34 Ø	63	3	*					100

Ø Based on total cases 0-3 mph.

\* Less than ½ of 1%

Table 12

PERCENTAGE OF TIME WITH FOG, PRECIPITATION, OR LOW VISIBILITY

Point Arena, California

Feb. 1937 through Feb. 1942  
Sept. 1939 and Nov. 1938 missing

<u>Condition</u>	<u>Dec.</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Wntr.</u>	<u>Mar.</u>	<u>General Conditions</u>											
						<u>Apr.</u>	<u>May</u>	<u>SPRG.</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sumr.</u>	<u>Sep.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Fall</u>	<u>Year</u>
Lgt. & Mod Fog	1.0	1.6	1.3	1.3	2.3	2.7	9.4	4.8	3.5	10.2	6.9	6.9	3.8	4.4	2.1	3.4	4.1
Dense Fog	4.6	1.5	0.3	2.1	1.1	3.1	2.9	2.4	8.9	14.5	17.5	13.6	6.4	7.9	3.3	5.9	6.0
Precipitation	31.0	35.3	25.1	30.5	26.1	15.0	12.1	17.7	5.3	1.0	0.8	2.4	3.0	9.8	8.8	7.2	14.5
						<u>Visibility</u>											
0 - ½ mile	5.0	1.7	0.3	2.3	1.5	3.4	6.2	3.7	9.0	15.5	17.9	14.2	12.9	7.7	5.8	8.8	7.3
½ - 1 mile	2.8	1.3	1.3	1.8	2.1	2.7	5.0	3.3	4.3	8.0	7.5	6.6	3.8	3.1	3.0	3.3	3.8
1 - 1½ - 6 miles	30.9	31.5	26.5	29.7	28.6	32.7	39.4	33.5	36.3	40.1	37.2	37.8	33.6	29.5	14.3	25.8	31.7

Table 13

PERCENTAGE OF TIME WITH FOG, PRECIPITATION OR LOW VISIBILITY

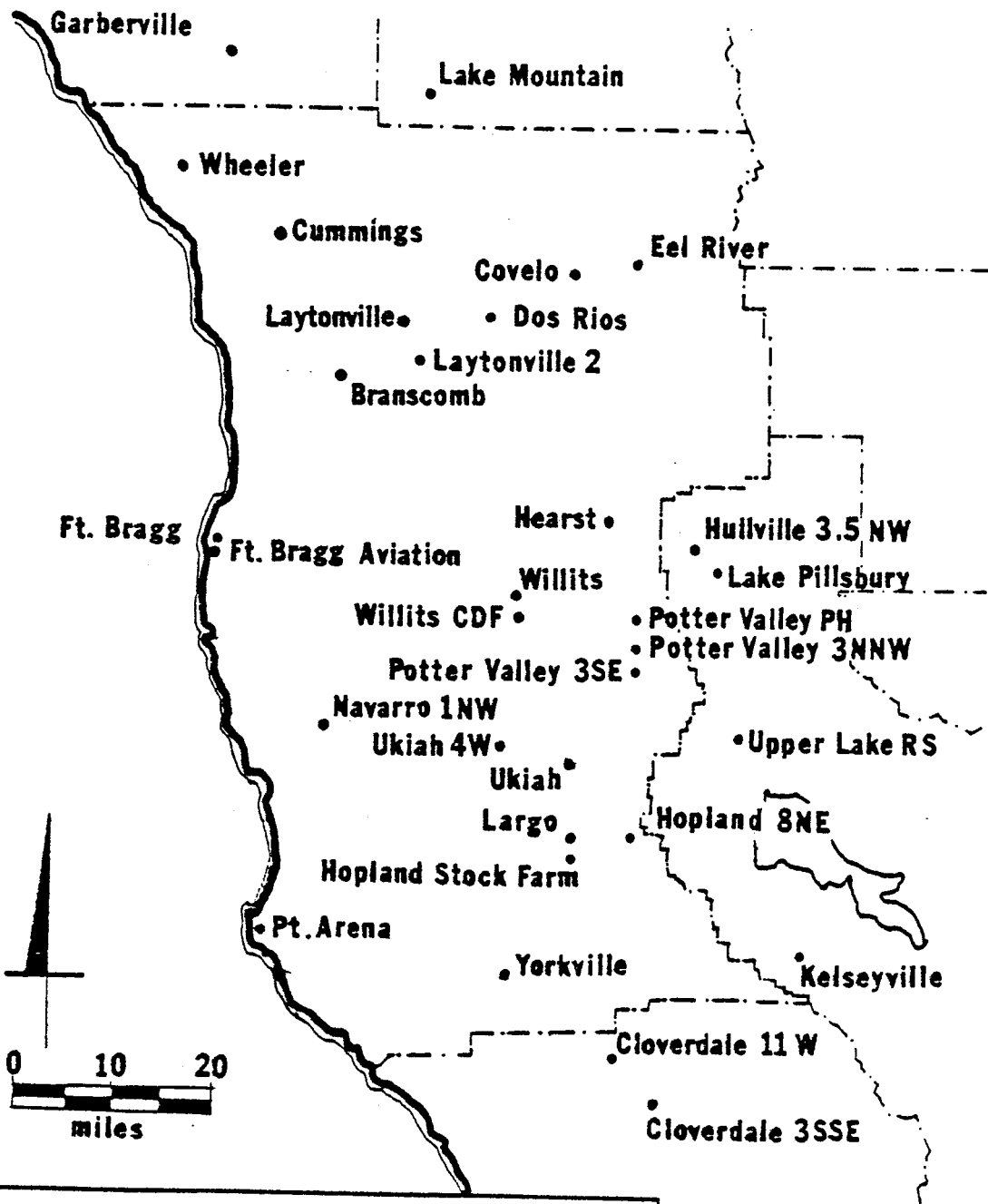
Fort Bragg, California

Jan. Feb. Apr. Nov. Dec. 1937  
Jan. 1938 through Nov. 1942

<u>Condition</u>	<u>Dec.</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Wntr.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>Sprg.</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sumr.</u>	<u>Sep.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Fall</u>	<u>Year</u>
Lgt. & Mod Fog	0.3	0.8	0.3	0.5	1.0	1.5	1.3	1.3	2.7	13.1	7.9	7.9	3.4	2.9	2.4	2.9	3.2
Dense fog	3.4	0.6	0.0	1.3	0.2	0.7	1.7	0.9	1.7	4.7	5.0	3.8	8.2	5.2	2.4	5.3	2.8
Precipitation	20.2	19.5	17.9	19.2	9.9	10.5	8.0	9.5	1.5	0.3	0.2	0.7	2.0	8.8	14.0	8.3	9.4
	<u>Visibility</u>																
0 - ¼ mile	3.5	0.7	0.0	1.4	0.2	0.8	1.7	0.9	1.7	4.6	5.2	3.8	8.7	5.2	2.4	5.5	3.0
½ - 1 mile	0.9	1.2	1.7	1.3	3.9	2.0	1.3	2.4	2.6	3.6	3.7	3.3	3.1	1.5	1.7	2.1	2.3
1 - 1¼ - 6 miles	12.9	10.8	9.1	11.0	11.5	6.4	5.5	7.8	2.2	12.5	9.8	8.2	13.4	16.7	13.8	14.6	10.4

20  
29  
e

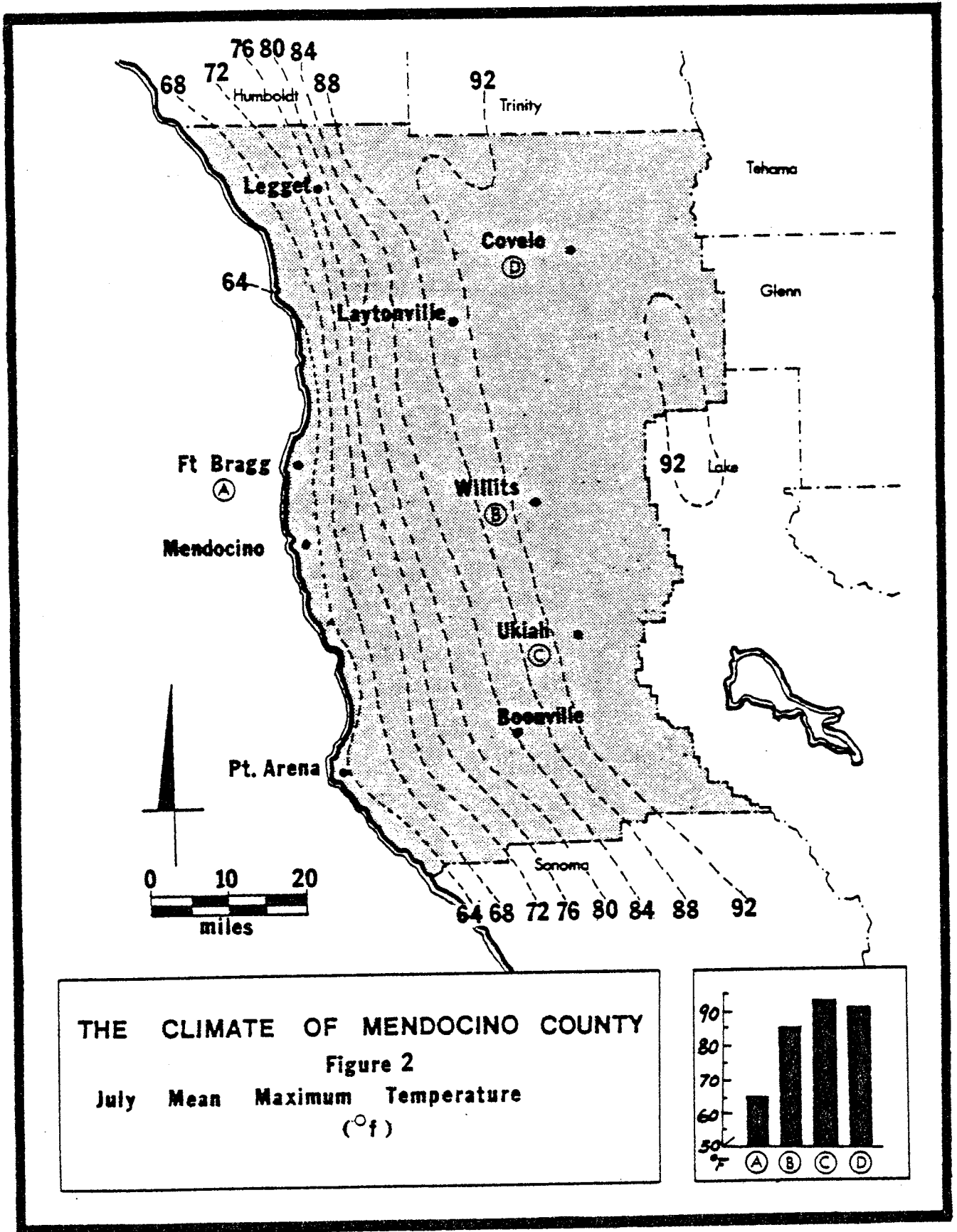


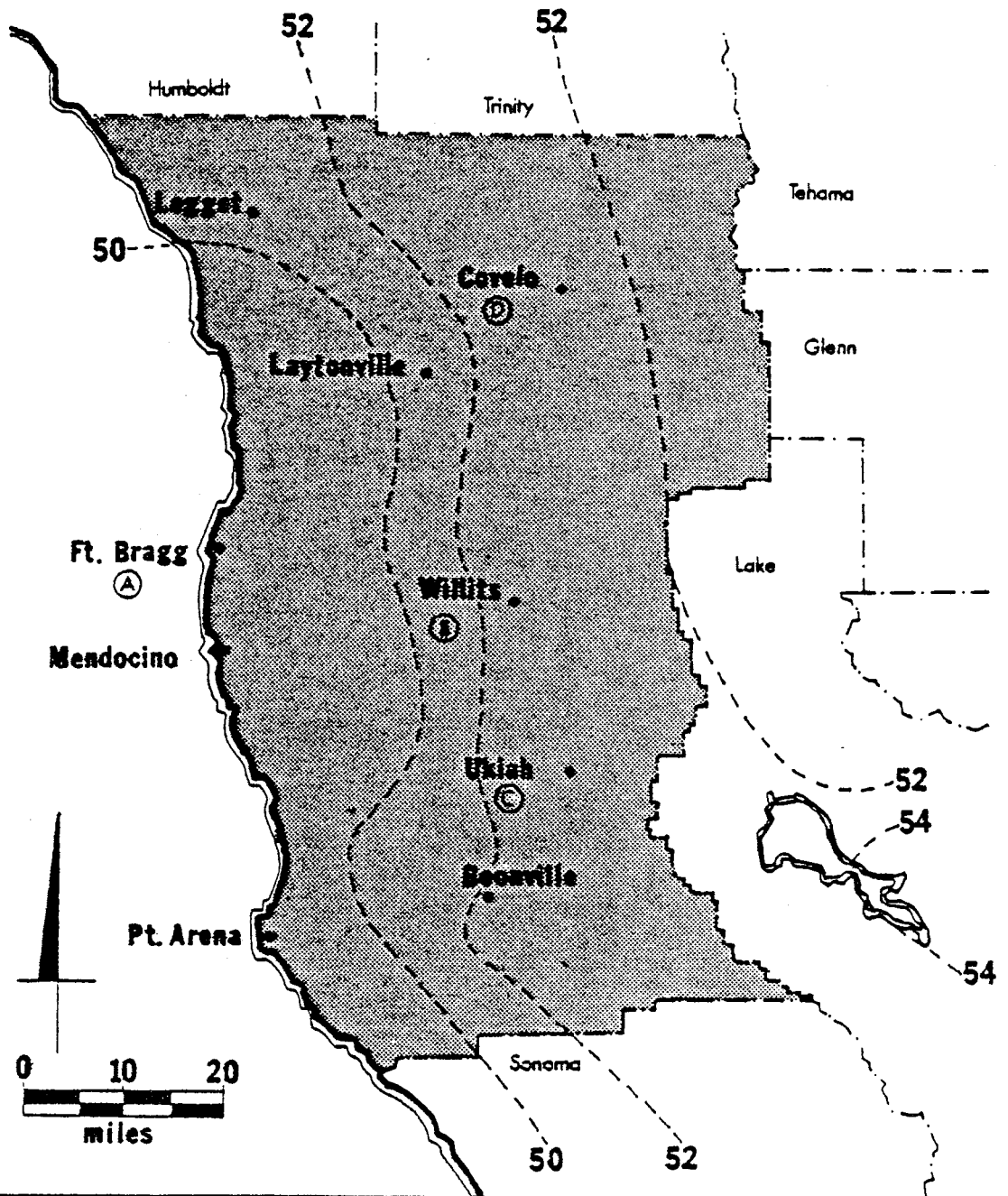


**THE CLIMATE OF MENDOCINO COUNTY**

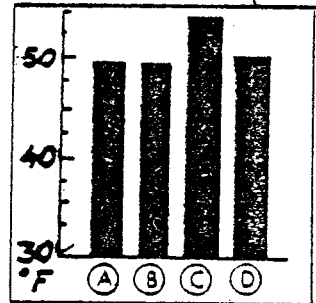
Figure 1

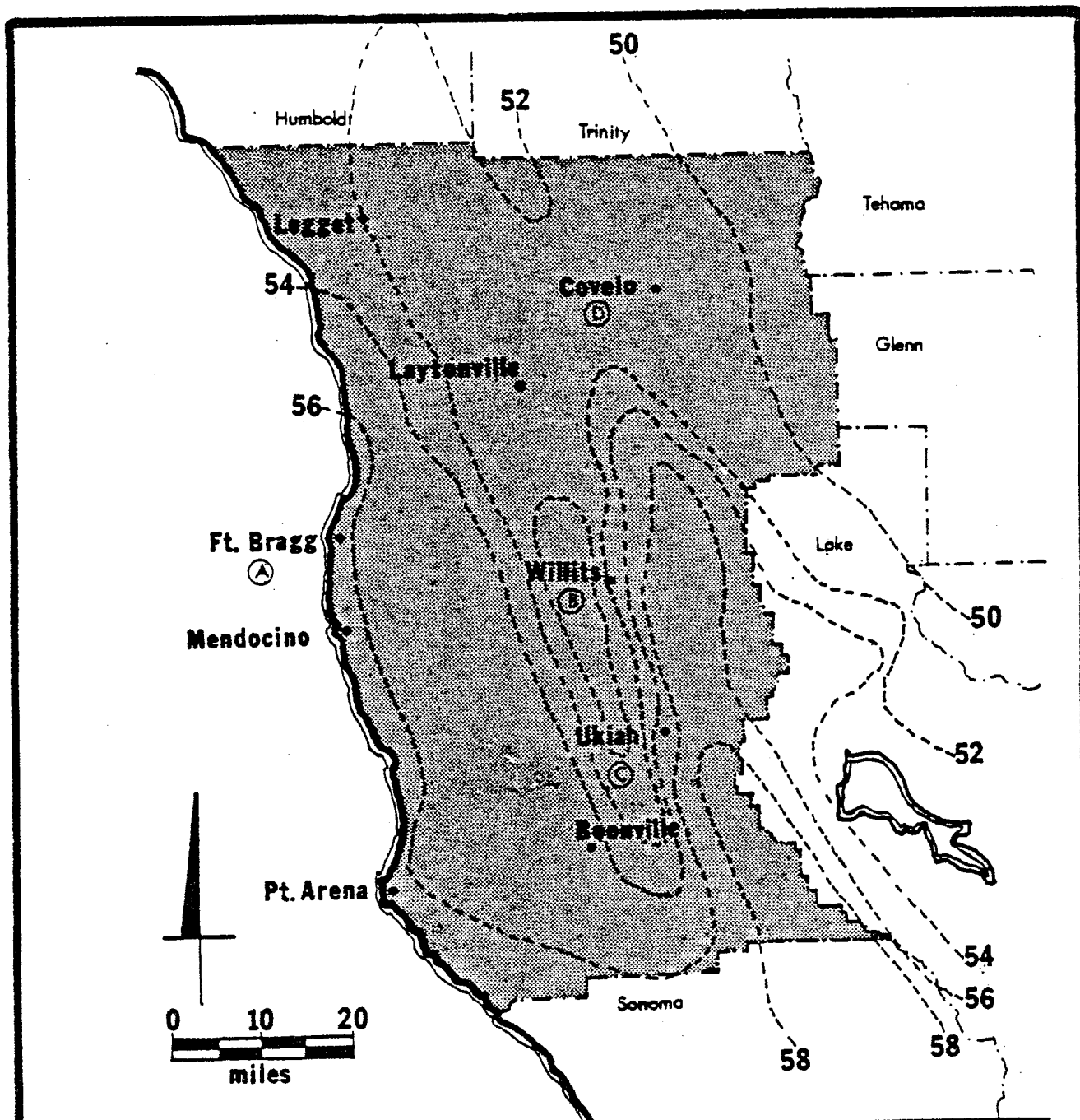
**WEATHER REPORTING STATIONS**



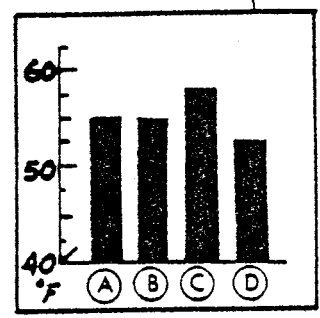


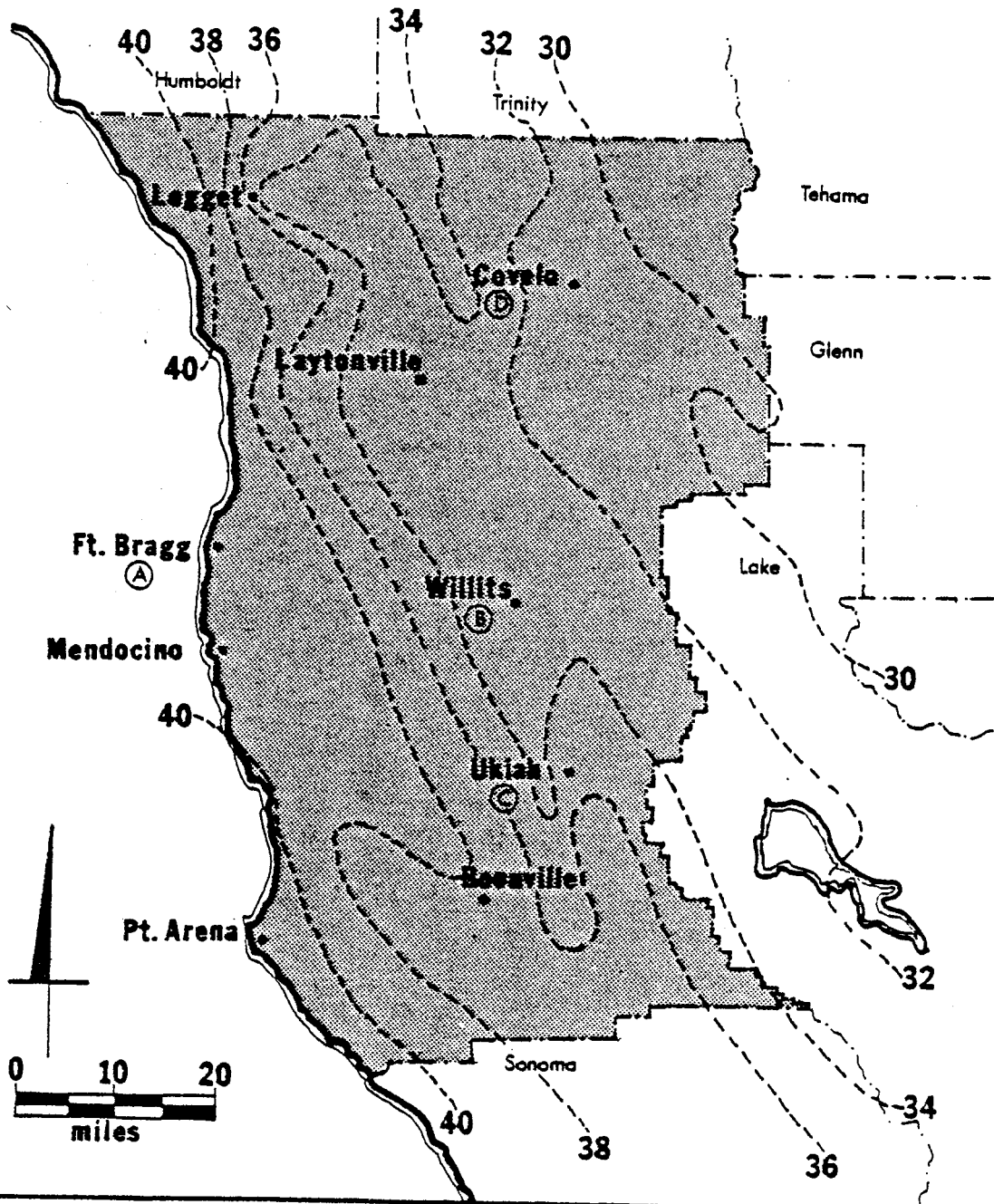
**THE CLIMATE OF MENDOCINO COUNTY**  
**Figure 3**  
**July Mean Minimum Temperature**  
**(°f)**



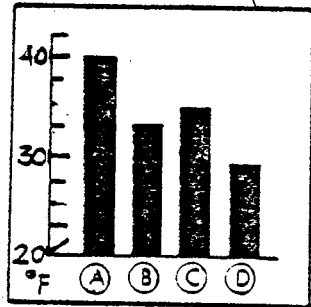


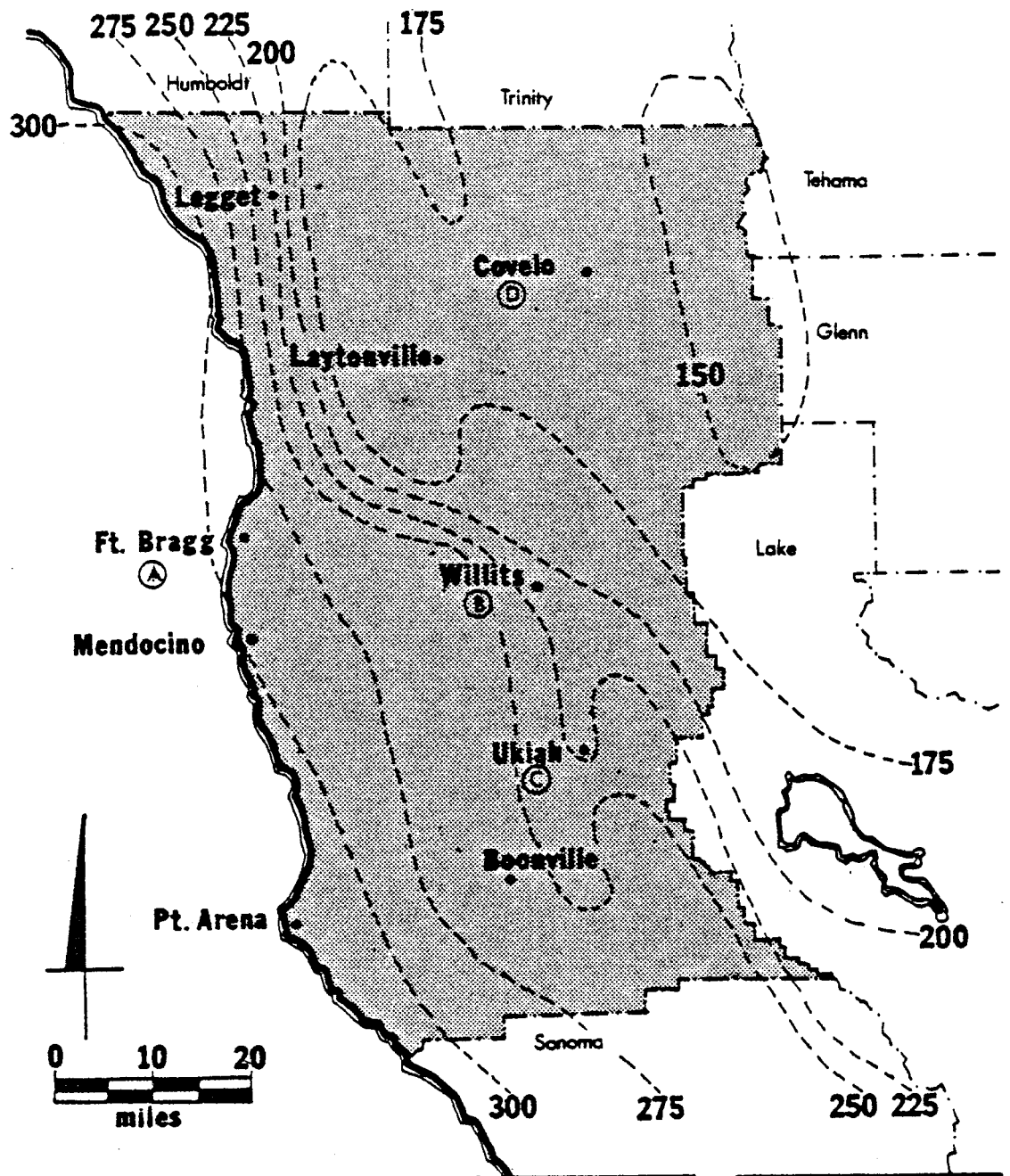
**THE CLIMATE OF MENDOCINO COUNTY**  
 Figure 4  
**JANUARY MEAN MAXIMUM TEMPERATURE**  
 (°f)



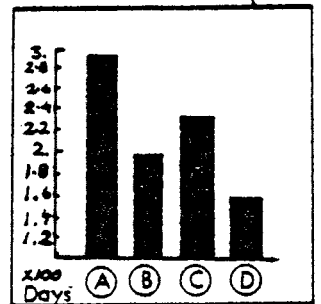


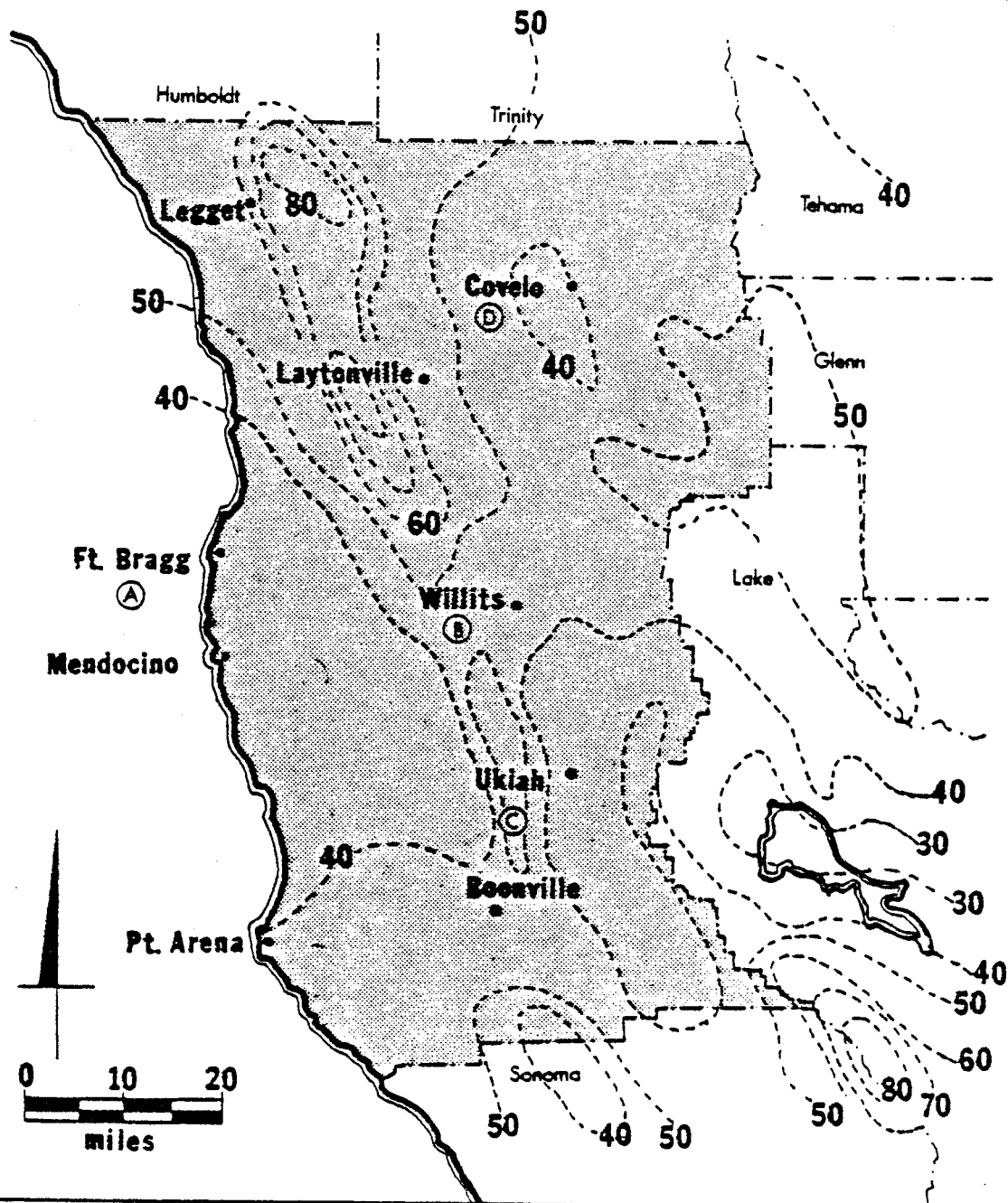
**THE CLIMATE OF MENDOCINO COUNTY**  
 Figure 5  
**JANUARY MEAN MINIMUM TEMPERATURE**  
 (°f)





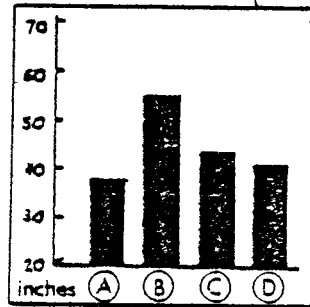
**THE CLIMATE OF MENDOCINO COUNTY**  
**Figure 6**  
**AVERAGE LENGTH of 32° GROWING SEASON**  
**(days)**

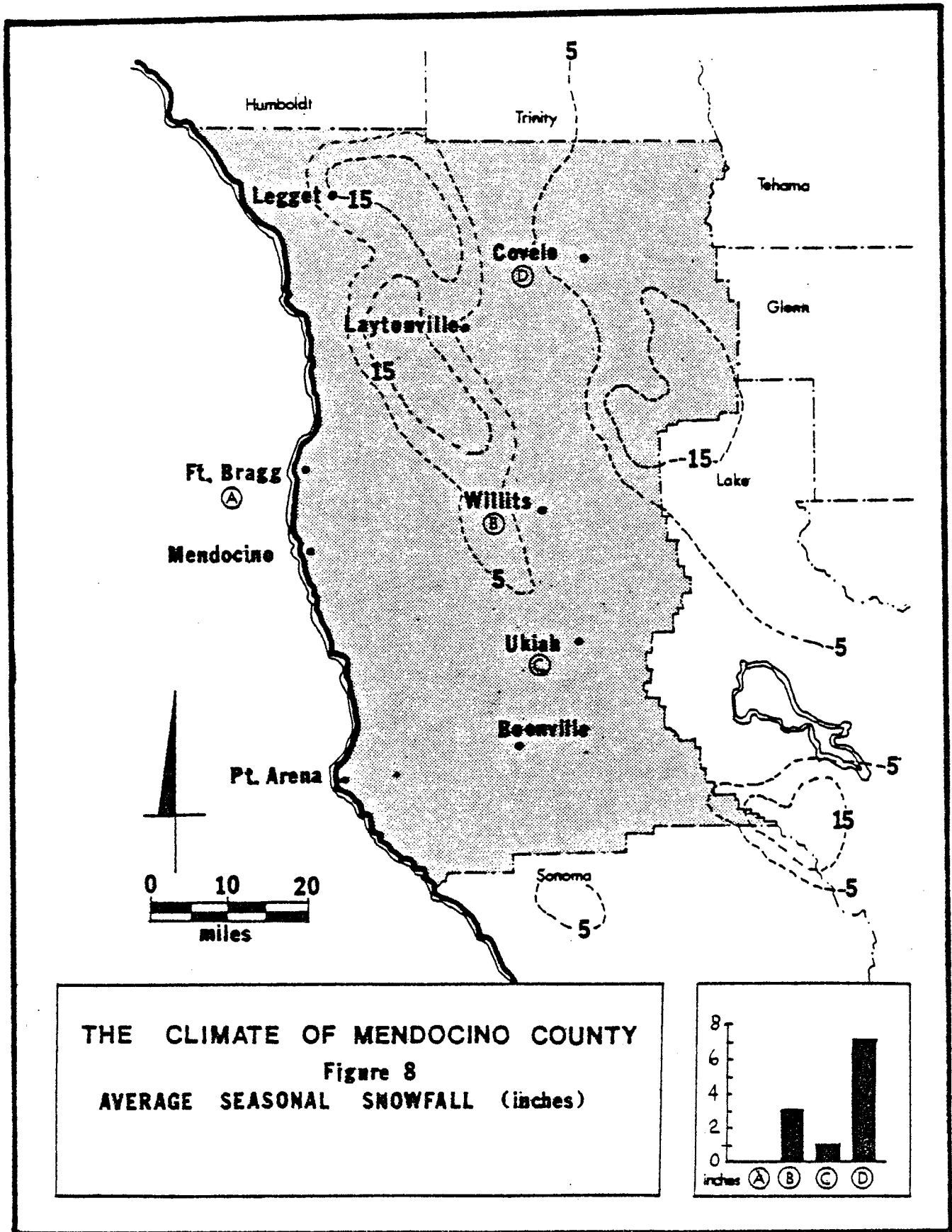




**THE CLIMATE OF MENDOCINO COUNTY**

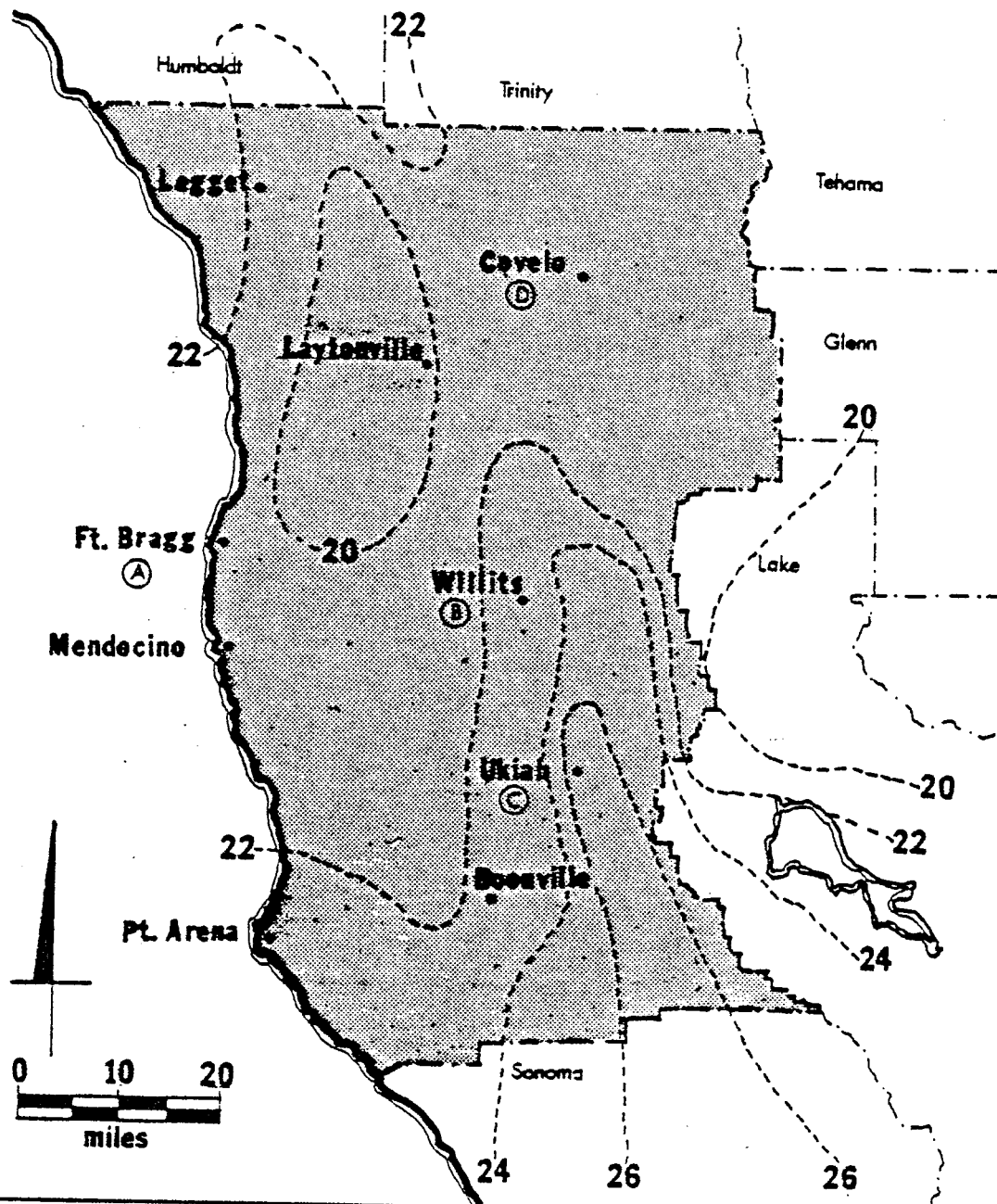
**Figure 7**  
**AVERAGE SEASONAL PRECIPITATION**  
**(inches)**





**THE CLIMATE OF MENDOCINO COUNTY**  
**Figure 8**  
**AVERAGE SEASONAL SNOWFALL (inches)**

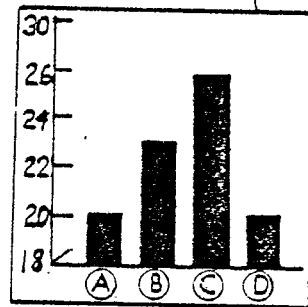


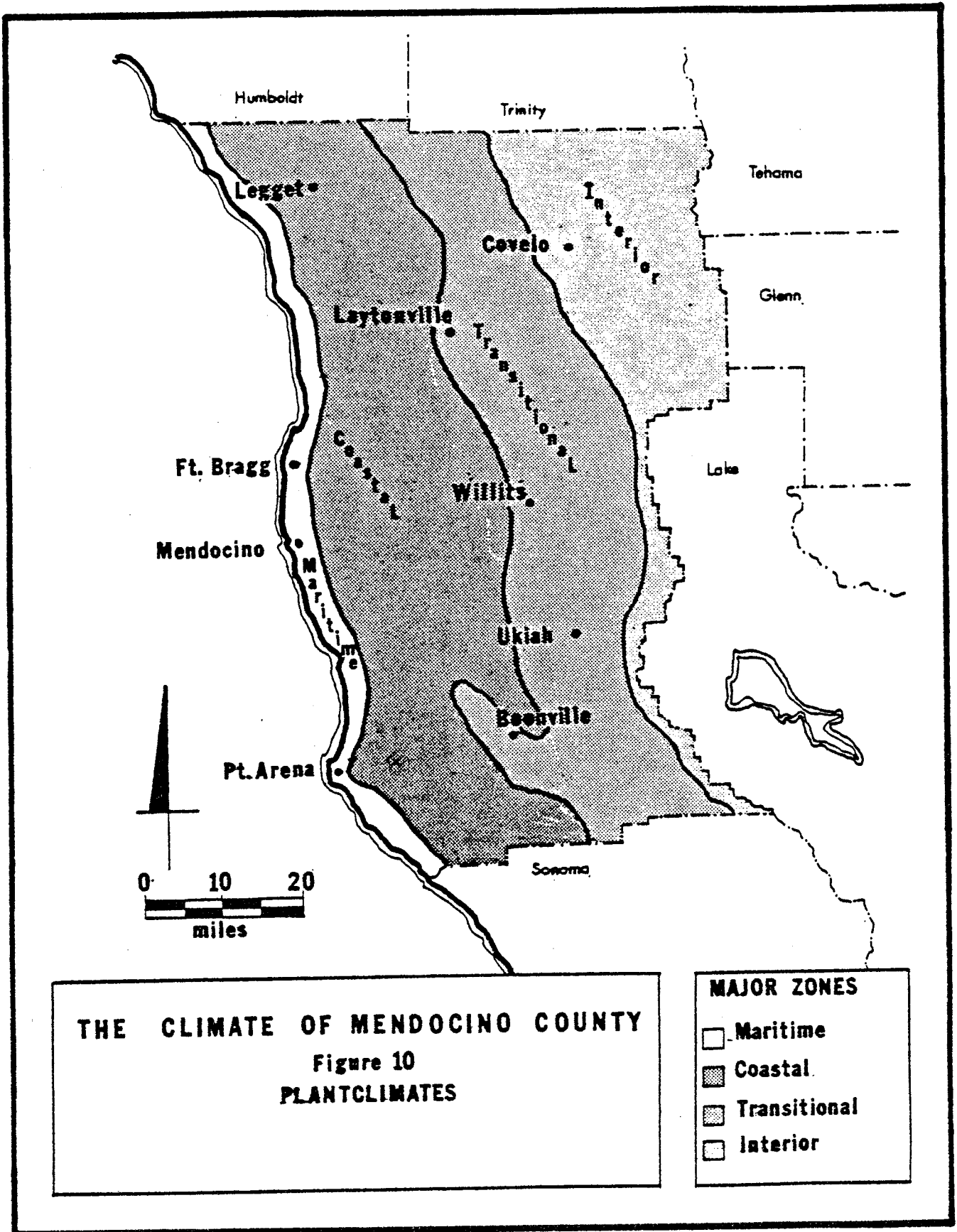


**THE CLIMATE OF MENDOCINO COUNTY**

Figure 9

**AVERAGE GROWING SEASON POTENTIAL  
EVAPOTRANSPIRATION (inches)**





**THE CLIMATE OF MENDOCINO COUNTY**  
 Figure 10  
**PLANTCLIMATES**

**MAJOR ZONES**

- ☐ Maritime
- ▒ Coastal
- ▒ Transitional
- ☐ Interior

