Monroe
Nous Inferiora

Vinterra Farm

WINERY AND VINEYARD
6505 STOKER ROAD
HOUSTON, OHIO 45333

HOMER KARL AND PHYLLIS JEAN MONROE
[redacted], PIQUA, OHIO 45356
[redacted]

September 18, 1981

Director
Bureau of Alcohol, Tobacco & Firearms
Washington, D.C. 20226

Subject: Petition To Establish "Loramie Creek" Viticultural Area

Dear Sir:

I hereby petition the ATF for the establishment of a viticultural area in the West Central region of Ohio - the history, specific boundaries and characteristics of which are claimed and documented herewith.

More specifically, this proposed viticultural area consists of approximately 3600 acres of rolling land south and west sloping in the southwest portion of Shelby County, Ohio with designated boundaries placing it partly within Cynthian and partly within Washington Townships. At present, the area to be identified herein has two operating bonded wineries, each with vineyards growing French hybrid grapes and comprising a total of 16 acres in production with a projection of 30 more acres to be planted within the next five years.

To support this request for the establishment of a viticultural area to be called Loramie Creek, various documents will be presented to show that the area is locally recognized and the name has historical significance supporting the fact of recognition. To identify the boundaries, included herewith are various maps and documents with appropriate identification and of authoritative origin, general and specific soil identification documents and a statement of climatic conditions.

As evidence of recognition, we submit that the designated viticultural area is bordered on the southwest by a portion of a river known as the Loramie Creek which originates at Lake Loramie, approximately four miles to the north of the northwest corner of the designated area. The stream then becomes the southwest boundary of the designated area for a distance of about 3-1/2 miles; then from a point detailed in the boundary maps continues on southeast to just south of Lockington where it empties into the Great Miami River. The location of the Loramie Creek is well known by most people in Shelby County and counties to the north, south and west, and it is associated with the historical significance of Fort Loramie, Newport, Hardin, Sidney, Lockington and surrounding places. Attached find pages 3 and 5 extracted from Robinson's 1979 Shelby County, Ohio Rural Directory, identified as exhibit A and exhibit B in support of the statements of recognition.

Also included herewith for evidence of correct boundaries is a 1967 map of Shelby County, exhibit C, showing the proposed viticultural area boundaries in red, beginning at the northeast corner point A at the intersection of State Route 47 and Wright-Puthoff Road extending southward to point B a distance of 1-3/8 miles to the intersection of the Wright-Puthoff Road with the CCC and STL Railroad (identified in a newer and larger map as the New York Central and now a part of the Conn Rail System); then along the railroad right-of-way in a southwesterly direction for a distance of 2-1/8 miles to point C, the intersection of the railroad right-of-way with the Loramie Creek - this intersection point C being the southern most point of the bounded area; thence upstream in a northwesterly direction following the course of the Loramie Creek for a distance of approximately 3-1/2 miles to point D where the Loramie Creek intersects State Route 47 establishing the northwest corner of the bounded area; thence eastward following the route of State Route 47 for a distance of approximately 4-1/8 miles to point A, thus closing the boundary.

Exhibit D, copied from the USGS Survey Map, shows the aforedescribed boundaries in a greater detail with contour lines that show the general change in slope from southeast on the east side of boundary line AB to south and southwest on the west side of boundary line AB. The southward and westward slope of the land within the boundary of the designated viticultural area presents a more favorable condition with respect to the direction of sunlight during the growing season. Exhibit D also indicates the altitude approximately between 940 and 1000 feet above sea level, and the position of the contour lines indicate the roll of the land. This is particularly important in the detail of vineyard location so that proper air drainage can provide protection from frost.

For identification of the soil detail, exhibits E and F are presented. Exhibit E on the face side indicates the map sheet numbers containing the designated viticultural area; namely, map 37, 38, 44 and 45. The back side of exhibit E shows the soil legend and symbols contained in the map. Exhibit F is an assembly of the four map sheets shown in the index with the boundaries of the viticultural area designated in red and the present vineyard locations marked in green.

Although the detail of soil identification shown in the maps of exhibit F is valuable in selection of specific vineyard sites, for the purpose of viticultural area identification with respect to soil a general soil map of Shelby County, exhibit G, is presented with the boundaries of the viticultural area identified. Exhibit G shows that the entire proposed viticultural area is Glynwood-Blount Soil Association, deep, gently sloping to sloping, moderately well drained and somewhat poorly drained upland soils formed in clay loam or silty clay loam glacial till. The association is on ridges and side slopes that parallel major streams and drainage ways. It is mostly gently sloped and moderately well drained. It is generally good farmland, but must be well managed.

Exhibit H is taken from the soil survey of Shelby County, Ohio, United States Department of Agriculture Soil Conservation Service. It lists average temperature and precipitation data which is typical of the proposed viticultural area.

I submit these documents A through H as evidence: (1) that the area is known by the proposed name; (2) that the proposed boundaries of the viticultural area are correct; (3) that the geographical features of the area produce growing conditions which distinguish the proposed area from surrounding areas; (4) that exhibits C, D, F and G graphically display this petition's narrative description of the boundaries; (5) that exhibit D is a copy of the applicable portion of the appropriate USGS map with the boundaries marked in red.

In consideration of this letter of petition and the supporting documents, I respectfully request approval of the establishment of a definite viticultural area herein described to be called Loramie Creek.

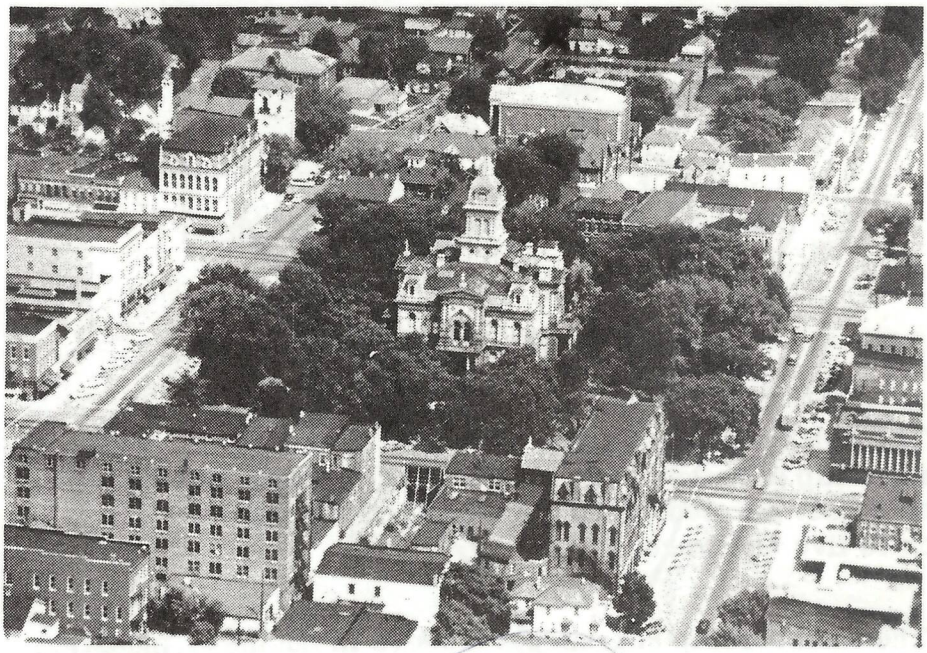
Very truly yours,

Homer K. Monroe

Homer K. Monroe
Proprietor
Ohio Bonded Winery No. 284
6505 Stoker Road
Houston, Ohio 45333

lt
Enclosures

EXHIBIT A



HISTORY OF SIDNEY & SHELBY COUNTY, OHIO

The historical development of Sidney is truly typical of the development of America. The Sidney area, originally a vast forest, was set aside as rich hunting grounds by numerous Ohio Indian tribes, such as the Wyandots and Shawnee. In 1739, Peter Loramie came into this area and founded a trading post at Loramie, 14 miles northwest of Sidney, where pioneer adventurers and Indian skirmishes were a part of every-day life. In 1782, General George Rogers Clark was sent to Loramie to establish peace and order and Peter Loramie and the Indians headed westward. A few years later, in 1794, General "Mad Anthony" Wayne built a fort at Loramie, an important out-post in the development of the land west of the Alleghenies.

Much of Ohio, including Shelby County, was settled by people from the New England states, Pennsylvania and West Virginia. Somewhat later there was a considerable migration of Germans who came to America to escape military conscription. Starting in 1803, slowly at first, the population of Shelby County has increased steadily but not spectacularly. Today the racial background of the people is predominantly English, Dutch and German, with other races represented to a lesser degree.

Shelby County, established in 1810, originally included the present counties of Allen and Auglaize, and was named for Governor Shelby of Kentucky. Hardin was the first county seat. Sidney, named for Sir Philip Sidney, English patriot and warrior, was laid out the following year, and the seat of county government was moved into the first hastily-erected courthouse. Two county buildings have succeeded the original structure, the present courthouse having been built in 1881.

This territory was first claimed by the English and the French, the ownership finally being determined by the decisive battles of the French and Indian War. After the War of the Revolution, conflicting claims of the Colonial States were settled finally by the organization of the territorial government of Ohio in 1788. James Thatcher, following the Detroit Highway (the Harmer Trail) northward in 1803 established the first home in Shelby County.

When Charles Starret offered 70 acres of land in 1819 for the establishment of Sidney as the county seat of Shelby County, he could hardly have foreseen that his land would develop into the site of an important manufacturing center. Mr. Starret offered his land to the County Commissioners provided that it would be the site of a county seat and that he would receive one-half of the income from the sale of lots. The Commissioners, meeting at Hardin, accepted his bid and sent a notice to the Common Pleas Court Judge, who appointed David Henry as the first director of the proposed town.

Since the incorporation of Sidney in 1820, its growth has been certain and steady. When the Miami-Erie Canal was built between Cincinnati and Toledo during the 1830's, Sidney was located on a canal feeder. This feeder received its water from the Miami River at Port Jefferson and emptied into the canal at Lockington. Thus, a new mode of transporting manufactured goods cheaper and quicker was provided. The advent of the canal was the spark which started towns of the Miami Valley toward progress. The canal was supplanted by the railroads and truck lines with still cheaper means of shipping goods.

The completion of the Miami-Erie canal, the building of the railroads and the development of agriculture and industry are the highlights of Shelby County history. The strategic position of Sidney with reference to markets and the access to those markets by superior transportation facilities, have been the favorable factors in the city's past, present and potential growth. The people have kept pace with the physical and economic development of Sidney by the establishment of adequate educational facilities, modern churches and superior streets and highways. Private enterprise has matched public endeavor throughout the years. Sidney and Shelby County march into the future, confident of their strength and capabilities.

SIDNEY
CHAMBER
OF
COMMERCE

YOU'RE WELCOME HERE

The Sidney-Shelby County Chamber of Commerce, with a membership of nearly 300 volunteers, is the one organization in the county devoted to making our area a better place in which to live and work.

The membership represents leaders in business, industry, and the professions as well as civic and governmental representatives. Chamber committees, made up of volunteer workers, are involved in all areas of the local economy and community improvement.

The Chamber serves as the front door of our community. It's the first place to come for information and assistance in researching industrial and commercial opportunities, locating a home for your business or yourself, and finding assistance in planning a convention or meeting.

You are invited to take a personal look at Shelby County--- see what it has to offer you, your family or your business.

Please feel free to call upon us. You are always welcome at the Chamber.

Sidney-Shelby County
Chamber of Commerce
133 S. Ohio Ave.
Sidney, Ohio 45365
(513) 492-9122

EXHIBIT B

SHELBY COUNTY, OHIO

Shelby County is located in the second rank of counties east of the Ohio-Indiana border and at the midpoint between Toledo and Cincinnati. It is intercepted from west to east by State Routes 274,119, and 47. Interstate 75 runs from the southern to the northern border just to the east of the center. State Route 29 crosses the county diagonally from the southeast to the northwest and in the western third of the county,State Route 66 goes from county line to county line.

The Miami River enters the county near the midpoint on the east border and flows into Miami County at Lockington,also at the midpoint of the southern county line. Loramie Creek,the largest tributary by far in the county,drains a well-defined valley. A dozen or more streams of water are at various parts of the county,Turtle,Plum,Mosquito,Tawawa and Leatherwood,and many lesser rivulets.

The topography of the county was determined by the late Wisconsin Glacier. The limestone drift deposited by this glacier is the parent materials for the soils of the county. The drift had a depth range of 75 to 164 feet over rock throughout the county.

The area north of the Miami River is characterized by uplands which maintain a high and undulating level,raising rather gradually in the northwest.

On both sides of the Miami River,the glacial gorge is of varying breadth with occasional low flood plains and rising tablelands,bordered by hills which rise in many instances,to commanding height above the valley.

The highest elevation in the county is 1,078 feet above sea level. The water level in the canal feeder at Sidney was 945 feet above sea level. It has been estimated that the surface of the county, excluding the valley of the Miami,would average about 75 feet above the water level in the canal feeder. Another reference point as to elevation was the bottom of the Loramie Reservoir;from its source to this point was a descent of 75 to 80 feet when the reservoir was fairly new.

Shelby County farmers pioneered rural electrification in Ohio and the United States. The first petitions initiating this movement were carried and signed by local farmers. Shelby County people were a part of the group that erected the pole in the rural electrification movement.

The now wide spread farm bureau discussion councils were first organized by Shelby County folks.

Farming in Shelby County is a 15.5 million dollar business. In 1964,the sale of livestock and livestock products were valued at nine million dollars and the gross receipts from crops was 5.6 million. The largest single source of income to Shelby County farmers came from the sale of dairy products. Their values in 1964 were $3,653,000. The sale of soybeans in the same year amounted to $2,333,000 and receipts from hogs was the third high source of farm income at $2,172,000.

Eighty-three percent of the farms are owner-operated and the average age of all farm operators in 1964 was 49.3 years.

The population of the county in 1970 was 37,746,an increase of 4,160 since 1960. Fifteen thousand one hundred thirty four people lived in the rural area. However,more than half of these people would be classified as rural non-farm. The seven incorporated villages had a combined 1964 population of 4,615 persons.

LAKE LORAMIE

Lake Loramie,located between Minster and Fort Loramie on Route 66, is one of the oldest lakes in Ohio. It was started in 1837 as a feeder for the Miami-Erie Canal and was completed in 1844.

The waters of the lake entered the canal at Fort Loramie,a historic town which figured importantly in General Anthony Wayne's battle for the Northwest Territory.

For many years 60 to 80 ton canal boats carried passengers and cargo from Cincinnati to points to the north on this early waterway. The remains of the canal and some of the locks are still seen by sightseers who are interested in this early American form of transportation. Loramie is considered one of the best bass lakes in Ohio. Plenty of bullheads are caught and of course,the popular crappies. Bluegills rate high too,as well as channel cats,sunfish,carp and suckers.

Fort Loramie has an interesting historic background,being the location of one of the early forts for the guarding and supply of fighting men under General Anthony Wayne.

It was the location of Peter Loramie's store which supplied the Indians around the year 1769,he catered to the hostile Shawnees as a trading post during the time they made raids on the pioneer settlers in Kentucky.

Around 1781 General George Rogers Clark raided his trading post and burned it. Peter Loramie disappeared with his Shawnee friends.

A few years later General Anthony Wayne built a fort on the site of the trading post and later the town was laid out.

Fort Loramie and Minster are in the heart of Dutch Ohio. Around 1837 the original settlers, German Catholics,came to the area. Since that time it has kept its Dutch identity and the two towns are largely made up of this same stock today.

Visit THE CHURCH OF YOUR CHOICE
Every Sunday

SHELBY COUNTY OFFICIALS

AGRICULTURE AGENT
Roger Bender
BOARD OF ELECTIONS
Shyla Goffena, Dir.
CIVIL DEFENSE
Nancy Sue Ball
DOG WARDEN
Joe Buroker
COUNTY HOME (FAIR HAVEN)
Charles Shaffer, Administrator
HEALTH DEPT.
Dr. George Schroer, Health Commissioner
SOLDIERS & SAILORS (VETERANS)
Fred Carey
SUPERINTENDENT OF SCHOOLS
Donald Flinn
AUDITOR
Thelma White
CLERK OF COURTS
Barbara Blake Geuy

COMMON PLEAS JUDGE
Lieudell Bauer
CORONER
George Schroer
COUNTY COMMISSIONERS
Leroy Regula
Donald Conklin
Bernard Aselage
ENGINEER
Stephen Hubbell
JUVENILE COURT JUDGE
Thomas E. Eshman
PROSECUTING ATTORNEY
Scott Jarvis
RECORDER
James Kies
SHERIFF
John Lenhart
TREASURER
Gerald Billing

TOWNSHIP TRUSTEES & CLERKS

CLINTON TOWNSHIP
James O. Fultz
Samuel W. Rees, Vice Chairman
Elmer Crusey, Jr., Chairman
Waldo C. Coverstone, Clerk

CYNTHIAN TOWNSHIP
Paul Benanzer, V-Chairman
Maurice Quinter
William J. Barhorst, Chairman
Jerrold F. Gephart, Clerk

DINSMORE TOWNSHIP
William R. Elsass
Emerson Englehaupt, Chairman
Robert Henschen, V-Chairman
Ralph Nuss, Clerk

FRANKLIN TOWNSHIP
Russell Lenhart, V-Chairman
Ernest Heintz
James R. Davis, Chairman
Paul Berner, Clerk

GREEN TOWNSHIP
Ronald Middleton, Chairman
John W. Moore, V-Chairman
Gerald M. Smith
Richard C. Peters, Clerk

JACKSON TOWNSHIP
Ivan Zorn, V-Chairman
Roy Baker, Jr.
Nelson E. Mann, Chairman
Ralph Regula, Clerk

LORAMIE TOWNSHIP
Herbert Barhorst, Chairman
Lester G. McKinney, V-Chairman
Robert B. Barlage
Ottis Grillot, Clerk

McLEAN TOWNSHIP
Robert C. Hoying, V-Chairman
Reinhard Siegel
Jerome Winner, Chairman
Esther F. Seger, Clerk

ORANGE TOWNSHIP
Ronald K. Ely, Chairman
James Howell
Thomas W. Graver, V-Chairman
Richard T. Martin, Clerk

PERRY TOWNSHIP
Lowell Clayton, V-Chairman
James Hetzler, Chairman
Homer E. Riddle
Wally Gillman, Clerk

SALEM TOWNSHIP
Elmer A. Limbert, V-Chairman
Clarence Wildermuth, Jr.
Arlington Kinninger, Chairman
Robert Burk, Clerk

TURTLE CREEK TOWNSHIP
Russell Carey
Ralph W. Ellerman, Chairman
Patrick Hoying, V-Chairman
Jerome I. Siegrist, Clerk

VAN BUREN TOWNSHIP
Karl Timmerman, Chairman
Roger Egbert
Larry Hirschfeld, V-Chairman
Stanley Shuster, Clerk

WASHINGTON TOWNSHIP
Clyde Block, V-Chairman
Loren McMaken
William B. Kingseed, Chairman
Richard Nishwitz, Clerk

TTB NOTE: Exhibits C-G are not available in digital form due to their size. Contact TTB for more information.

EXHIBIT H.

TABLE 1.--TEMPERATURE AND PRECIPITATION DATA

Month	Temperature[1]						Precipitation[1]				
	Average daily maximum	Average daily minimum	Average daily	2 years in 10 will have-- Maximum temperature higher than--	2 years in 10 will have-- Minimum temperature lower than--	Average number of growing degree days[2]	Average	2 years in 10 will have-- Less than--	2 years in 10 will have-- More than--	Average number of days with 0.10 inch or more	Average snowfall
	°F	°F	°F	°F	°F	Units	In	In	In		In
January----	33.6	17.3	25.5	58	-13	10	2.21	1.15	3.06	6	7.8
February---	36.6	19.7	28.2	61	-8	0	1.92	1.00	2.67	5	7.5
March------	47.2	28.5	37.8	77	4	122	2.97	1.54	4.13	7	7.3
April------	61.7	39.5	50.7	83	19	321	4.09	2.15	5.67	6	1.4
May--------	72.5	49.8	61.2	90	30	657	3.31	2.22	4.31	8	.0
June-------	81.3	58.9	70.1	94	41	903	3.62	2.22	4.87	7	.0
July-------	84.0	62.3	73.2	95	46	1,029	3.54	1.89	4.87	6	.0
August-----	83.2	60.6	72.0	94	44	992	2.84	1.34	4.05	5	.0
September--	77.1	54.4	65.8	92	34	774	3.06	1.49	4.34	5	.0
October----	65.9	43.9	54.9	85	23	462	2.19	1.08	3.08	5	.2
November---	50.3	33.8	42.1	73	13	121	2.69	1.71	3.56	7	3.6
December---	37.7	22.9	30.3	65	-6	47	2.61	1.28	3.68	6	7.9
Year-----	60.9	41.0	51.0	96	-14	5,438	35.05	30.29	39.59	75	35.7

[1]Recorded in the period 1957-75 at Celina, Ohio.

[2]A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (40° F).

RECEIVED
9-29-82
lori Weins

Monroe
None Inferiora

Vinterra Farm

WINERY AND VINEYARD
6505 STOKER ROAD
HOUSTON, OHIO 45333

HOMER KARL AND PHYLLIS JEAN MONROE
[redacted], PIQUA, OHIO 45356
[redacted]

September 27, 1982

Ms. Lorie Weins
Bureau of Alcohol, Tobacco & Firearms
Research & Regulations Branch
Washington, D.C. 20226

Subject: Loramie Creek Viticultural Area

Dear Ms. Weins:

In reply to your call of September 11th I have been unable to find anyone who has measured and recorded the rainfall within the boundaries of the subject viticultural area. Our county agent, Mr. Bender, offered to search for such information but so far I have not heard from him. His comment was that the rainfall most certainly could be expected to be measurably different since the information submitted to you with the application was gathered at Celina, Ohio which is 28 miles to the northwest.

We would not expect the character of the grapes to be different since this is the purpose of planting certain varieties. For example, one of our better varieties is Vidal, a French hybrid producing a light white wine which has certain recognizable character no matter where the grape is grown; therefore, if a variety can be successfully grown it must certainly maintain its character. As a matter of comment, there is a vineyard in Celina, Ohio planted with this same variety, the French hybrid Vidal 256. In our vineyard these grapes matured and were picked on September 18th; while those planted in the vineyards near Celina have not yet ripened sufficiently to be picked. So there is obviously a difference in the areas, and my comment here can be documented if necessary.

Loramie Creek, in my opinion, is too small to have a moderating effect on the adjacent area; however, the surface drainage is toward and to the Loramie Creek.

I have no data with regard to whether or not the dormant period is greater or less than surrounding areas.

The soil in the designated area is primarily Glynwood-Blount, and according to the USDA SCS Soil Survey of Shelby County it makes up about 16% of the county. I am enclosing a copy of paragraph 3, page 4 of the Shelby County USDA Soil Survey which describes the character of the Glynwood soils.

Very truly yours,

Homer K. Monroe

Homer K. Monroe (lt)

lt
Enclosure

information then needs to be organized so that it is readily available to different groups of users, among them farmers, engineers, planners, developers and builders, homebuyers, and those seeking recreation.

General soil map for broad land use planning

The general soil map at the back of this publication shows, in color, map units that have a distinct pattern of soils and of relief and drainage. Each map unit is a unique natural landscape. Typically, a map unit consists of one or more major soils and some minor soils. It is named for the major soils. The soils making up one unit can occur in other units but in a different pattern.

The general soil map provides a broad perspective of the soils and landscapes in the survey area. It provides a basis for comparing the potential of large areas for general kinds of land use. Areas that are, for the most part, suited to certain kinds of farming or to other land uses can be identified on the map. Likewise, areas of soils having properties that are distinctly unfavorable for certain land uses can be located.

Because of its small scale, the map does not show the kind of soil at a specific site. Thus, it is not suitable for planning the management of a farm or field or for selecting a site for a road or building or other structure. The kinds of soil in any one map unit differ from place to place in slope, depth, stoniness, drainage, or other characteristics that affect their management.

1. Blount-Pewamo

Level to gently sloping, somewhat poorly drained and very poorly drained soils formed in loamy glacial till on uplands

This map unit occurs as extensive scattered areas that make up about 37 percent of the county. It is about 60 percent Blount soils, 31 percent Pewamo soils, and 9 percent minor soils.

The somewhat poorly drained Blount soils are on slight rises and low knolls surrounded by the very poorly drained depressional and level Pewamo soils. Blount soils have a silt loam surface layer. They are slowly permeable. Pewamo soils typically have a silty clay loam surface layer. They are moderately slowly permeable.

Among the minor soils in this unit are the moderately well drained Glynwood soils. These soils typically occupy the crests of a few higher knolls.

Most areas of the unit are farmed intensively. A small acreage is in permanent pasture (fig. 1) or woods. The main farm enterprise is cash-grain farming of corn and soybeans along with dairying and raising hogs and beef cattle.

Seasonal wetness is the major limitation of the dominant soils for farming. Much of the unit is artificially drained through surface and subsurface drains. Artificially drained areas of Blount and Pewamo soils dry out more quickly in spring than undrained areas and are well suited to crops grown in the county. Wetness and slow or moderately slow permeability are severe limitations for many nonfarm uses.

2. Blount-Pewamo-Glynwood

Level to gently sloping, somewhat poorly drained, very poorly drained, and moderately well drained soils formed in loamy glacial till on uplands

This map unit occurs as scattered areas that make up about 23 percent of the county. It is about 63 percent Blount soils, 17 percent Pewamo soils, 13 percent Glynwood soils, and 7 percent minor soils.

Blount soils are somewhat poorly drained and are nearly level to gently sloping. They have a silt loam surface layer. They are slowly permeable. Pewamo soils are very poorly drained. They are in depressions and drainageways. They have a silty clay loam surface layer. They are moderately slowly permeable. Glynwood soils are moderately well drained and are mostly gently sloping. They typically have a silt loam surface layer. They are slowly permeable.

Among the minor soils in this unit are the well drained Eldean soils and the very poorly drained Montgomery, gravelly substratum, soils. These soils typically are near streams.

Most areas of the unit have been cleared and used as cropland or pasture. A few areas are wooded. The main farm enterprises are dairying and raising hogs and beef cattle. There is some cash-grain farming of corn, soybeans, and wheat.

Seasonal wetness on Blount and Pewamo soils and an erosion hazard on Glynwood soils are the principal limitations for farming. Much of the acreage of Blount and Pewamo soils is artificially drained through surface and subsurface drains. Artificially drained areas, which dry out more quickly in spring than undrained areas, are well suited to crops grown in the county. Wetness on the Blount and Pewamo soils and the slow or moderately slow permeability of all the dominant soils in the unit are severe limitations for many nonfarm uses.

3. Glynwood-Blount

Gently sloping and moderately sloping, moderately well drained and somewhat poorly drained soils formed in loamy glacial till on uplands

This map unit occupies ridges and side slopes that parallel major streams and drainageways. It makes up about 16 percent of the county. It is about 61 percent

ilynwood soils, 29 percent Blount soils, and 10 percent inor soils.

Glynwood soils are moderately well drained and are ostly gently sloping to moderately sloping. They have a ilt loam or clay loam surface layer. They are slowly ermeable. Blount soils are somewhat poorly drained nd are mostly gently sloping. They have a silt loam urface layer. They are moderately slowly or slowly perneable.

Among the minor soils in the unit are the very poorly rained Pewamo soils of the depressional uplands and e moderately well drained Medway and somewhat oorly drained Shoals soils of the flood plains.

Most areas of the unit are used as cropland or pasure. Some of the more sloping areas are wooded. The lope and a severe erosion hazard are the major limitaons of the Glynwood soils for farming. Seasonal wetess and a moderate erosion hazard are the major limiations of the Blount soils for farming. Unless artificially rained, Blount soils are slow to dry out in spring.

Restricted permeability of the dominant soils and wetess on the Blount soils are severe limitations for most onfarm uses. Glynwood soils have fewer limitations for uilding sites than Blount soils, except where the slope a limitation.

. Glynwood-Morley

loderately sloping to very steep, moderately well rained and well drained soils formed in loamy glacial till n uplands

This map unit occupies the steepest areas that parallel e valley wall along major streams. It makes up about 2 ercent of the county. It is about 60 percent Glynwood oils, 26 percent Morley soils, and 14 percent minor oils.

Glynwood soils are moderately well drained and are ostly moderately sloping to moderately steep. They ave a silt loam or clay loam surface layer. They are lowly permeable. Morley soils are well drained and are teep to very steep. They have a silt loam surface layer. hey are slowly permeable.

Among the minor soils in the unit are the well drained ldean and the somewhat poorly drained Shoals and lount soils. Eldean and Shoals soils are near streams. lount soils are on slight rises of the uplands.

Because slopes are steep, most of the acreage is ermanent pasture or woods. A few of the less sloping reas are cropland. The slopes and a severe erosion azard are the major limitations of the dominant soils for rming and for many nonfarm uses. The steeper areas f the unit have potential recreational uses, for example, iking and nature trails.

5. Eldean-Genesee-Eel variant

Level to gently sloping, well drained and moderately well drained soils formed in loamy glacial outwash and alluvium on terraces and flood plains

This map unit occupies areas along major streams. It makes up about 3 percent of the county. It is about 33 percent Eldean soils, 12 percent Genesee soils, 9 percent Eel variant soils, and 46 percent minor soils.

The Eldean are well drained soils on outwash terraces. They are mostly nearly level to gently sloping. They typically have a loam surface layer. Permeability is moderate to moderately slow in the subsoil and very rapid in the substratum.

Genesee soils are well drained, and the Eel variant soils are moderately well drained. Both the Genesee and Eel variant soils are level to nearly level. Both are on flood plains. Genesee soils have a silt loam surface layer. They are moderately permeable. The Eel variant soils have a silt loam surface layer. They are moderately slowly permeable.

Among the minor soils in the unit are the well drained Milton, Warsaw, and Ockley soils. These soils are on terraces along streams. Other minor soils are the moderately well drained Eel and the somewhat poorly drained Shoals soils on flood plains and the very poorly drained Patton soils in depressional areas of glacial lakes.

A large part of the acreage along Loramie and Turtle Creeks is farmed intensively. Some areas along the Great Miami River are farmed less intensively because of the moderate depth to limestone and the hazards of flooding and wetness. Because the Eldean soils are only moderately deep over sand and gravel, they are too droughty for farming. Occasional flooding late in winter and in spring moderately limits the Genesee and Eel variant soils for farming. All the dominant soils in the map unit are suited to irrigation.

Flooding is a severe limitation on the Genesee and Eel variant soils for most nonfarm uses. Eldean soils have few limitations for nonfarm uses. They have good natural drainage and favorable topography. The underlying sand and gravel in Eldean soils is suitable for commercial use.

6. Crosby-Brookston

Level and nearly level, somewhat poorly drained and very poorly drained soils formed in loamy glacial till on uplands

This map unit occurs as extensive areas that make up about 14 percent of the county. It is about 66 percent Crosby soils, 29 percent Brookston soils, and 5 percent minor soils.

The somewhat poorly drained Crosby soils are on broad flats and slight rises surrounded by the very poorly drained Brookston soils in broad, level and depressional areas. In cultivated areas, these soils form striking light

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS

Map symbol	Soil name	Acres	Percent
Ag	Algiers silt loam	144	0.1
BlA	Blount silt loam, 0 to 2 percent slopes	24,459	9.4
BlB	Blount silt loam, 2 to 6 percent slopes	84,169	32.3
Bs	Brookston silty clay loam	10,515	4.0
Ca	Carlisle muck	159	0.1
CeA	Celina silt loam, 0 to 2 percent slopes	486	0.2
CeB	Celina silt loam, 2 to 6 percent slopes	2,609	1.0
CnA	Crane silt loam, 0 to 2 percent slopes	219	0.1
CrA	Crosby silt loam, 0 to 2 percent slopes	20,391	7.8
CrB	Crosby silt loam, 2 to 6 percent slopes	6,140	2.4
Ee	Eel silt loam, occasionally flooded	1,917	0.7
Ef	Eel Variant silt loam, occasionally flooded	759	0.3
ElA	Eldean loam, 0 to 2 percent slopes	1,336	0.5
ElB	Eldean loam, 2 to 6 percent slopes	1,699	0.7
EoC2	Eldean-Casco complex, 6 to 15 percent slopes, eroded	341	0.1
EsB2	Eldean-Morley complex, 2 to 6 percent slopes, eroded	390	0.1
EsC2	Eldean-Morley complex, 6 to 15 percent slopes, eroded	252	0.1
Ge	Genesee silt loam, occasionally flooded	1,108	0.4
GlB	Glynwood silt loam, 2 to 6 percent slopes	11,316	4.3
GlB2	Glynwood silt loam, 2 to 6 percent slopes, eroded	14,438	5.5
GlC2	Glynwood silt loam, 6 to 12 percent slopes, eroded	10,142	3.9
GlD2	Glynwood silt loam, 12 to 18 percent slopes, eroded	1,183	0.5
GmC3	Glynwood clay loam, 6 to 12 percent slopes, severely eroded	4,893	1.9
GmD3	Glynwood clay loam, 12 to 18 percent slopes, severely eroded	622	0.2
Md	Medway silt loam, occasionally flooded	379	0.1
MhB	Miamian silt loam, 2 to 6 percent slopes	3,053	1.2
MhC2	Miamian silt loam, 6 to 12 percent slopes, eroded	1,875	0.7
MhD2	Miamian silt loam, 12 to 18 percent slopes, eroded	512	0.2
MhE	Miamian silt loam, 18 to 25 percent slopes	600	0.2
MhF	Miamian silt loam, 25 to 50 percent slopes	1,257	0.5
MlC3	Miamian clay loam, 6 to 12 percent slopes, severely eroded	339	0.1
MoB	Milton silt loam, 2 to 6 percent slopes	397	0.2
Mt	Montgomery silty clay loam	1,141	0.4
Mw	Montgomery silty clay loam, gravelly substratum	836	0.3
MxE	Morley silt loam, 18 to 25 percent slopes	564	0.2
MxF	Morley silt loam, 25 to 50 percent slopes	709	0.3
OcA	Ockley silt loam, 0 to 3 percent slopes	327	0.1
OdA	Odell silt loam, 0 to 2 percent slopes	745	0.3
OdB	Odell silt loam, 2 to 6 percent slopes	420	0.2
Pa	Patton silty clay loam	1,864	0.7
Pd	Pewamo silt loam	773	0.3
Pe	Pewamo silty clay loam	40,384	15.6
Pg	Pits, gravel	337	0.1
Sh	Shoals silt loam, occasionally flooded	1,844	0.7
St	Stonelick sandy loam, occasionally flooded	95	*
Ud	Udorthents	1,369	0.5
Wb	Wallkill silty clay loam	371	0.1
WdA	Warsaw Variant silt loam, 0 to 2 percent slopes	339	0.1
	Water	839	0.3
	Total	261,056	100.0

* Less than 0.1 percent.

TABLE 2.--FREEZE DATES IN SPRING AND FALL

Probability	Minimum temperature[1]		
	24° F or lower	28° F or lower	32° F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	April 18	April 29	May 19
2 years in 10 later than--	April 13	April 24	May 13
5 years in 10 later than--	April 4	April 15	May 1
First freezing temperature in fall:			
1 year in 10 earlier than--	October 19	October 10	September 28
2 years in 10 earlier than--	October 25	October 16	October 3
5 years in 10 earlier than--	November 7	October 26	October 13

[1]Recorded in the period 1957-75 at Celina, Ohio.

TABLE 3.--GROWING SEASON LENGTH

Probability	Daily minimum temperature during growing season[1]		
	Higher than 24° F	Higher than 28° F	Higher than 32° F
	Days	Days	Days
9 years in 10	193	171	138
8 years in 10	201	179	147
5 years in 10	216	193	164
2 years in 10	231	207	181
1 year in 10	239	215	190

[1]Recorded in the period 1957-75 at Celina, Ohio.

Monroe
Nonc Inferiora

Vinterra Farm

WINERY AND VINEYARD
6505 STOKER ROAD
HOUSTON, OHIO 45333

HOMER KARL AND PHYLLIS JEAN MONROE
[redacted], PIQUA, OHIO 45356
[redacted]

November 19, 1982

Ms. Lorie Weins
Bureau of Alcohol, Tobacco & Firearms
Research & Regulations Branch
Washington, D.C. 20226

Subject: Loramie Creek Viticultural Area

Dear Ms. Weins:

I'm sorry it has taken so long to get the rainfall data you requested, but I just recently located, with the help of Lloyd Lutz, retired Shelby County Extension Agent, records which prove to be very interesting.

Enclosed are four pages of data on temperature and rainfall collected between the years 1967 and 1982 at a location less than seven miles east of the designated viticultural area.

I used this data to make a comparison with the information originally sent to you which was taken from the Shelby County Soil Survey. There is a considerable difference in precipitation. The following table was made up by averaging information from the enclosed data sheets. It represents the average rainfall for a 15-year period, 1967 through 1981, compared with the same information recorded at Lima, Ohio for the period 1957 through 1975, and indicates the percentage of variation by the month and the total for the year as follows:

AVERAGE RAINFALL 1967 THRU 1981
LORAMIE CREEK VITICULTURAL AREA (INCHES)
REFERENCED TO CELINA, OHIO AVERAGES 1957 THRU 1975

	LC	Celina	% Variation
January	2.06	2.21	(6.7)
February	1.78	1.92	(7.2)
March	2.72	2.97	(8.4)
April	3.69	4.09	(9.5)
May	3.70	3.31	11.7
June	4.21	3.62	16.2
July	3.91	3.54	10.4
August	3.94	2.84	38.7
September	2.34	3.06	(23.5)
October	2.91	2.19	32.8
November	2.75	2.69	2.2
December	3.06	2.61	17.2
TOTAL	37.07	35.05	5.7

Note that during the growing months - May, June, July and August - the average rainfall is 18.4% higher than at Celina, Ohio some forty miles away.

I did not compile the temperature and growing degree day information for comparison, but a spot check indicates that there would not be as much variation in the temperature as in the rainfall.

I hope this information will enable you to complete your file.

Very truly yours,

Homer K. Monroe

Homer K. Monroe

ljt
Enclosures

	Rainfall		Temperature, °F		Precipitation		Temperature °F	
1967 Mo	inches	Inches Daily Av	Daily maximum Av.	Daily Minimum Av	Inches 1969	Inches Daily Av.	Daily maximum Av.	Daily min. Av.
1	.89	.89	39	22	3.64	.12	35	15
2	1.77	.06	32	13	0.8	.03	40	21
3	4.08	.13	48	28	1.24	.04	47	22
4	3.34	.11	66	39	4.10	.14	65	38
5	5.22	.16	68	43	4.02	0.13	76	45
6	2.88	.09	84	57	4.68	0.16	78	55
7	2.28	.07	83	58	3.52	0.11	87	64
8	0.70	.02	82	55	2.64	0.085	86	59
9	1.86	.06	75	46	3.16	0.105	78	52
10	3.58	.11	63	40	2.17	0.07	67	41
11	3.23	.11	44	29	2.94	0.10	48	30
12	6.52	.21	41	24	1.83	0.06	37	19
1968					1970			
1	2.27	.07	32	12	1.69	0.056	29	9
2	.24	.008	34	14	1.41	0.05	38	17
3	1.74	.056	50	27	2.44	0.08	45	26
4	2.47	.08	63	38	5.90	0.19	64	39
5	5.55	.18	68	45	4.14	0.13	79	49
6	3.95	.10	82	57	3.91	0.13	84	58
7	5.20	.17	86	61	6.19	0.19	85	60
8	2.89	.09	84	61	0.85	0.027	87	59
9	2.11	.07	79	52	1.88	0.06	84	54
10	1.85	.06	66	39	2.23	0.07	68	42
11	5.22	.17	52	35	1.45	0.048	51	32
12	3.46	.11	38	22	1.49	0.048	43	23

Mo	Precipitation INCHES	Precipitation INCHES Daily AV	Temperature °F Daily Max. AV.	Temperature °F Daily Min AV.	Precipitation Inches	Precipitation Inches Daily AV.	Temperature °F Daily Max AV.	Temperature °F Daily min AV
1971					1973			
1	1.28	0.04	35	12	1.20	0.03	40	20
2	3.51	012	42	22	0.83	0.029	40	19
3	1.48	0.04	46	25	5.87	0.18	58	36
4	1.07	0.035	63	32	4.50	0.15	61	40
5	3.98	0.12	72	42	3.13	0.10	69	47
6	4.40	0.14	88	59			85	59
7	2.97	0.095	84	59	5.91	0.16	86	62
8	1.78	0.05	84	56	6.62	0.20	85	60
9	3.75	0.12	80	57	1.75	0.05	85	55
10	2.05	0.06	73	47	3.09	0.103	70	44
11	0.80	0.02	52	30	3.98	0.13	54	34
12	2.72	0.08	48	29	2.48	0.08	40	22
972					1974			
1	1.06	0.034	37	16	2.40	0.07	40	20
2	1.03	0.03	39	16	1.80	0.06	39	19
3	2.39	0.07	49	27	2.30	0.07	53	30
4	5.44	0.18	61	37	3.15	0.10	65	38
5			74	48	4.34	0.14	72	47
6	3.38	0.11	79	52	3.43	0.11	79	54
7	4.75	0.15	86	61	0.69	0.022	88	57
8	1.67	0.1053	84	58	5.19	0.16	85	59
9	7.40	0.20	77	54	3.60	0.12	72	48
10	2.46	0.07	60	39	1.88	0.06	65	38
11	6.58	0.21	46	33	2.89	0.09	52	33
12	3.42	0.11	38	26	2.97	0.09	39	24

Mo	Precipitation INCHES	Precipitation INCHES Daily AV	Temperature °F Daily Max. AV.	Temperature °F Daily Min. AV	Precipitation Inches	Precipitation Inches Daily AV.	Temperature °F Daily Max AV.	Temperature °F Daily Min AV
1975					1977			
1	3.59	0.11	40	22	1.03	0.033	21	-0.9
2	3.87	0.13	39	23	1.85	0.066	37	17.0
3	3.19	0.10	46	26	3.49	0.112	56	32.0
4	2.74	0.091	56	34	3.54	0.118	69	41.0
5	2.21	0.071	78	60	1.38	0.04	82	52.0
6	6.35	0.211	83	59	1.76	0.058	82	55.0
7	6.11	0.197	85	59	3.07	0.099	90	64.0
8	5.86	0.189	86	63	4.15	0.130	84	61.0
9	3.14	0.105	73	50	5.77	0.190	80	55.0
10	1.92	0.06	67	41	1.47	0.047	62	39.0
11	2.10	0.07	59	36	2.99	0.990	51	36.0
12	3.38	0.109	42	26	6.56	0.210	34	18.0
1976					1978			
1	2.91	0.09	34	15	4.13	0.13	25	7
2	3.44	0.122	50	26	0.44	0.01	29	2
3	3.08	0.099	58	34	2.35	0.07	42	24
4	1.68	0.06	67	37	3.88	0.13	61	37
5	2.61	0.084	72	47	3.01	0.97	70	49
6	4.46	0.148	84	58	2.58	0.86	82	58
7	1.69	0.054	86	59	4.09	0.13	82	61
8	2.52	0.081	83	55	5.49	0.177	82	60
9	2.27	0.076	77	48	1.13	0.04	81	55
10	2.38	0.08	59	35	3.65	0.11	62	38
11	0.59	0.019	44	23	0.66	0.022	52	34
12	0.60	0.019	35	14	4.35	0.14	40	23

	Precipitation		Temperature °F		Precipitation		Temperature °F	
No.	Inches	Inches Daily Av.	Daily max av	Daily min Av.	Inches	Inches Daily Av.	Daily Max Av.	Daily min Av.
1979					1981			
1	2.39	0.077	26	9	0.91	0.02	30	10
2	2.54	0.09	27	7	2.15	0.07	39	21
3	1.07	0.03	52	32	1.00	0.03	48	27
4	4.75	0.16	58	38	6.38	0.21	64	41
5	4.53	0.15	68	48	5.77	0.18	68	47
6	4.23	0.14	80	58	4.75	0.16	81	60
7	6.10	0.19	81	60	3.80	0.12	84	62
8	10.17	0.33	79	60	2.88	0.09	81	60
9	2.50	0.08	76	52	2.35	0.08	73	52
10	2.88	0.09	63	42	2.35	0.07	62	37
11	4.33	0.14	51	32	2.20	0.07	52	30
12	1.87	0.06	41	24	2.80	0.09	35	20
1980					1982			
1	1.48	0.05	35	19	5.57	0.18	29	7
2	1.65	0.05	31	13	3.06	0.11	34	17
3	5.11	0.16	42	26	4.55	0.14	48	28
4	2.45	0.08	58	37	1.71	0.05	57	34
5	2.00	0.06	73	49	6.20	0.20	78	52
6	8.25	0.28	78	55	4.54	0.15	76	54
7	2.39	0.08	86	64	1.14	0.03	85	62
8	5.69	0.18	88	64	2.55	0.08	81	57
9	1.53	0.05	79	53	1.58	0.05	75	51
10	2.50	0.08	60	37	1.53	0.04	66	43
11	1.34	0.04	48	24				
12	1.56	0.05	37	21				

Collected at Sidney Waste Water Treatment Plant Clem Road Sidney, Ohio

SEARCH BULLETIN 1044 APRIL 1971

Snow in Ohio

MARVIN E. MILLER
C. R. WEAVER

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
Wooster, Ohio

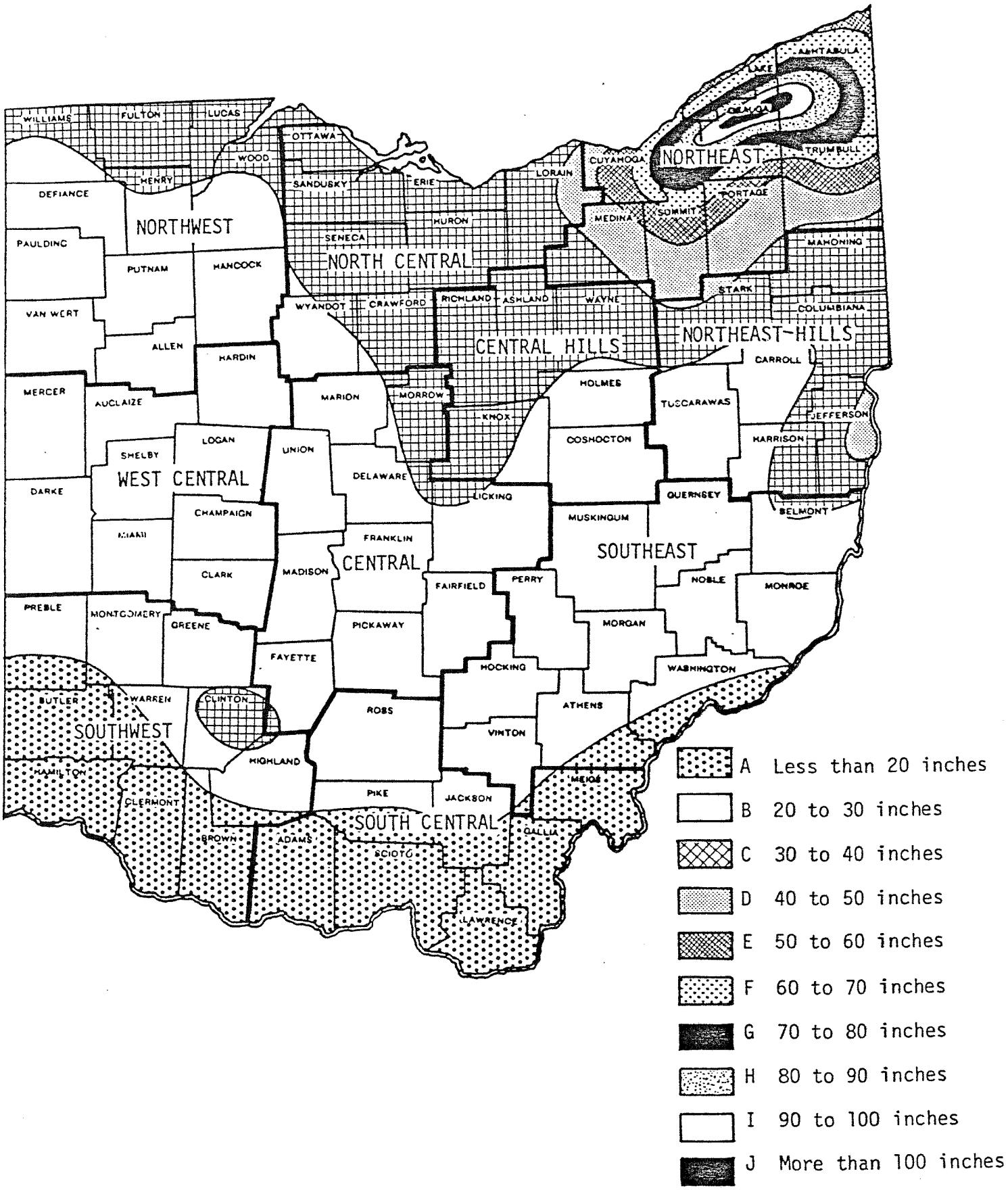


Fig. 1.—Mean snowfall for winter season (inches).

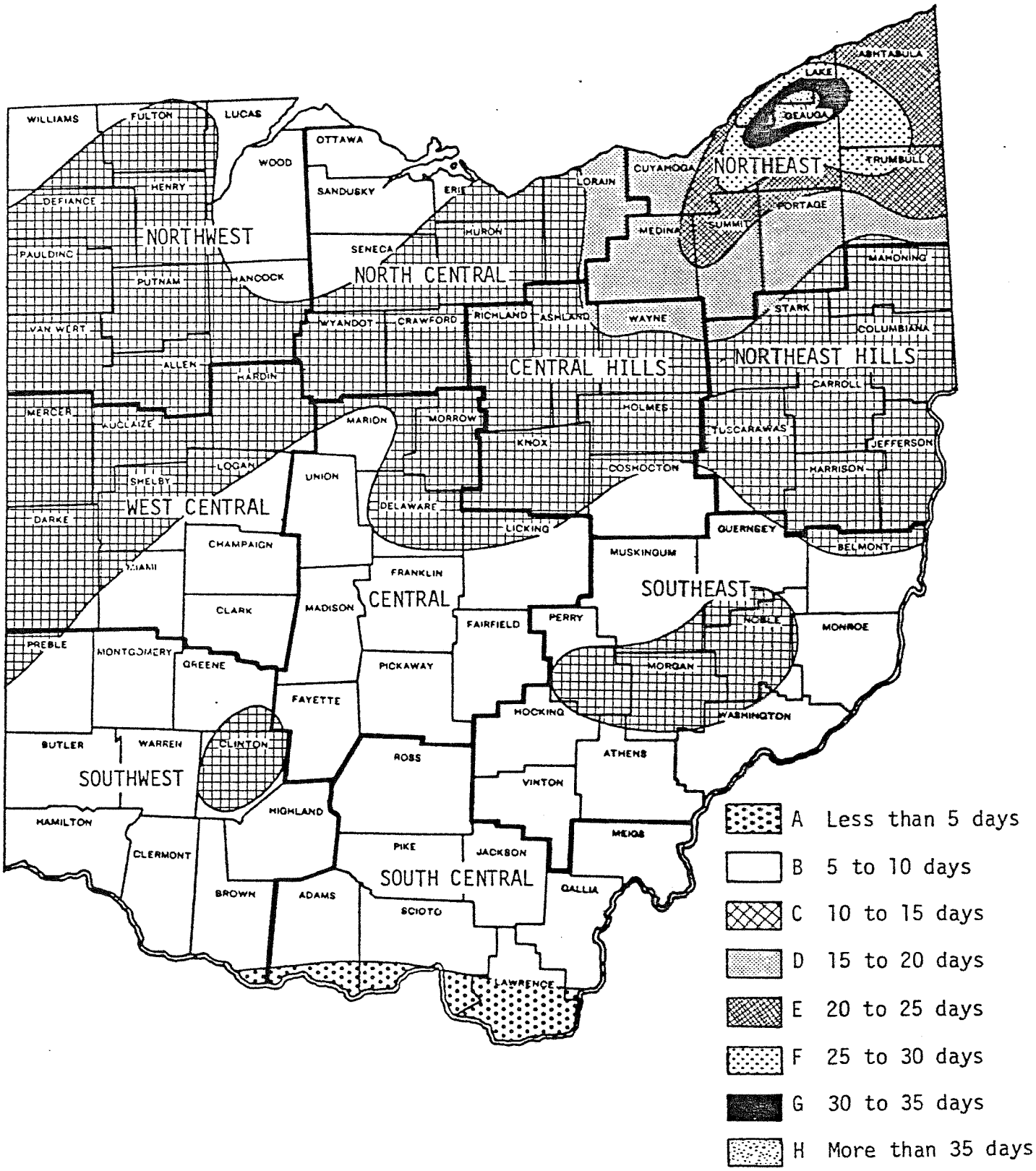


Fig. 2.—Mean number of days each winter with snowfall equal to or greater than 1 inch.

THE NEEDS AND SCOPE OF

THE OHIO GRAPE INDUSTRY

A Thesis

Presented in Partial Fulfillment of the Requirements
for the Degree Master of Science

by

Lawrence Gustav Anderson, Jr., BS

The Ohio State University
1975

Approved by

_____
Adviser
Department of
Agricultural Education

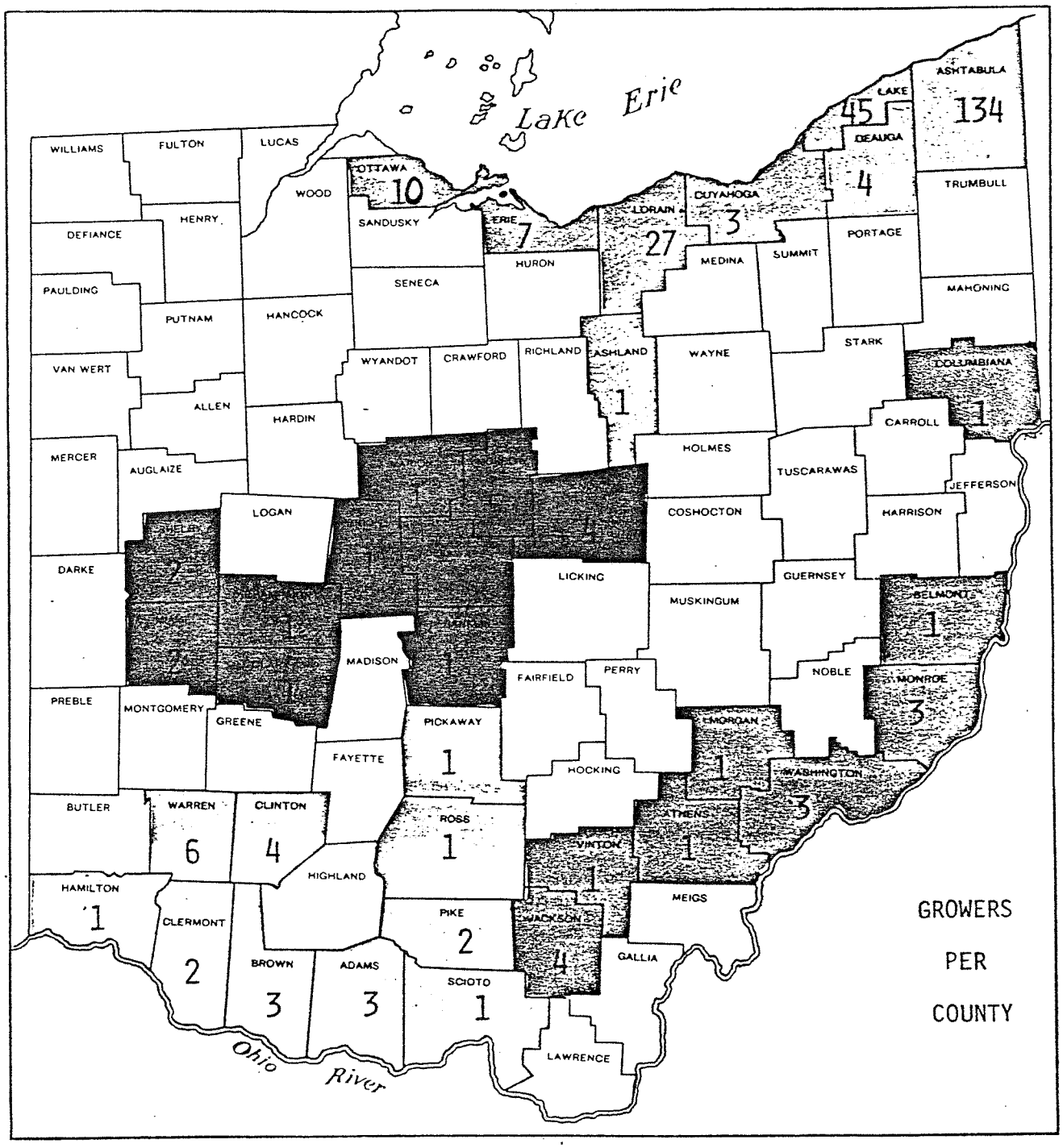
Northeast

Northcentral

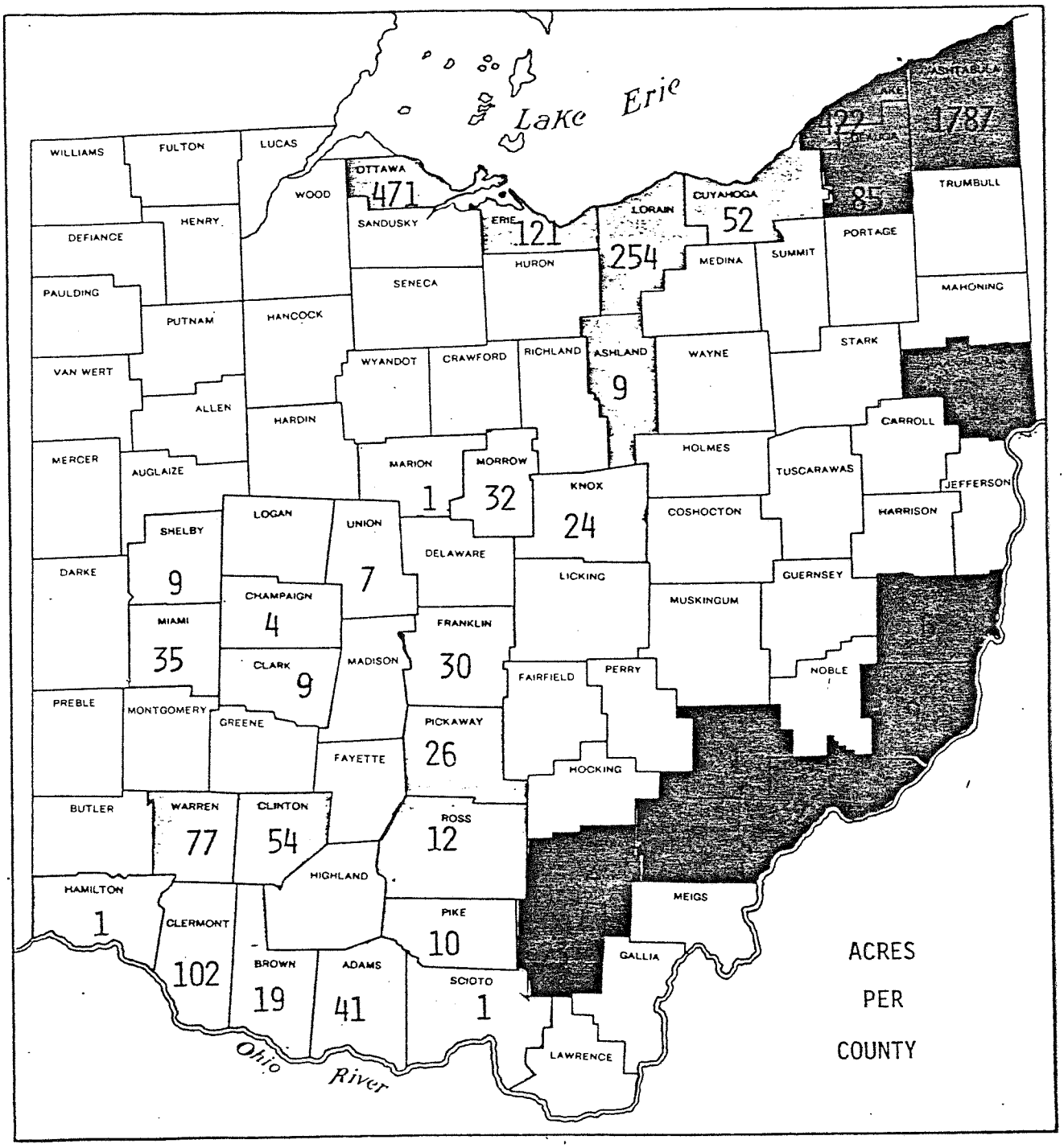
Westcentral

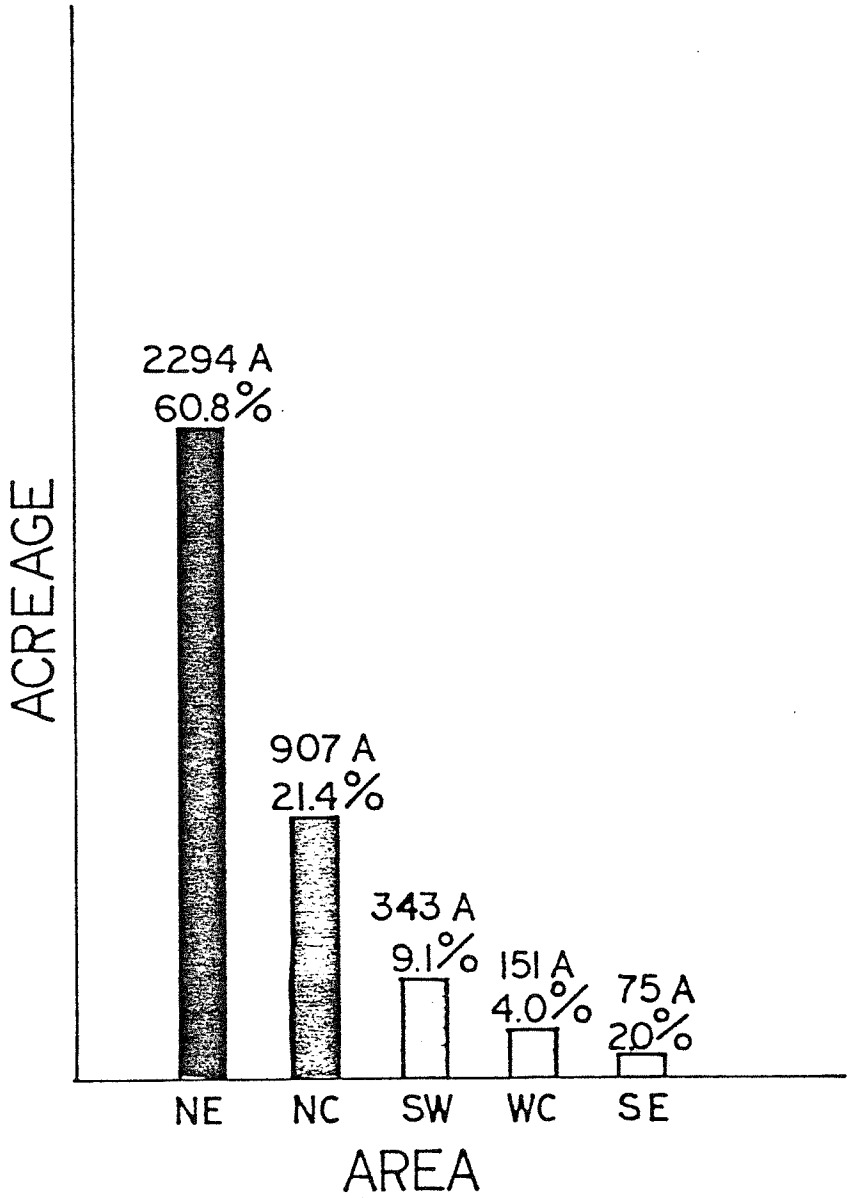
Southwest

Southeast

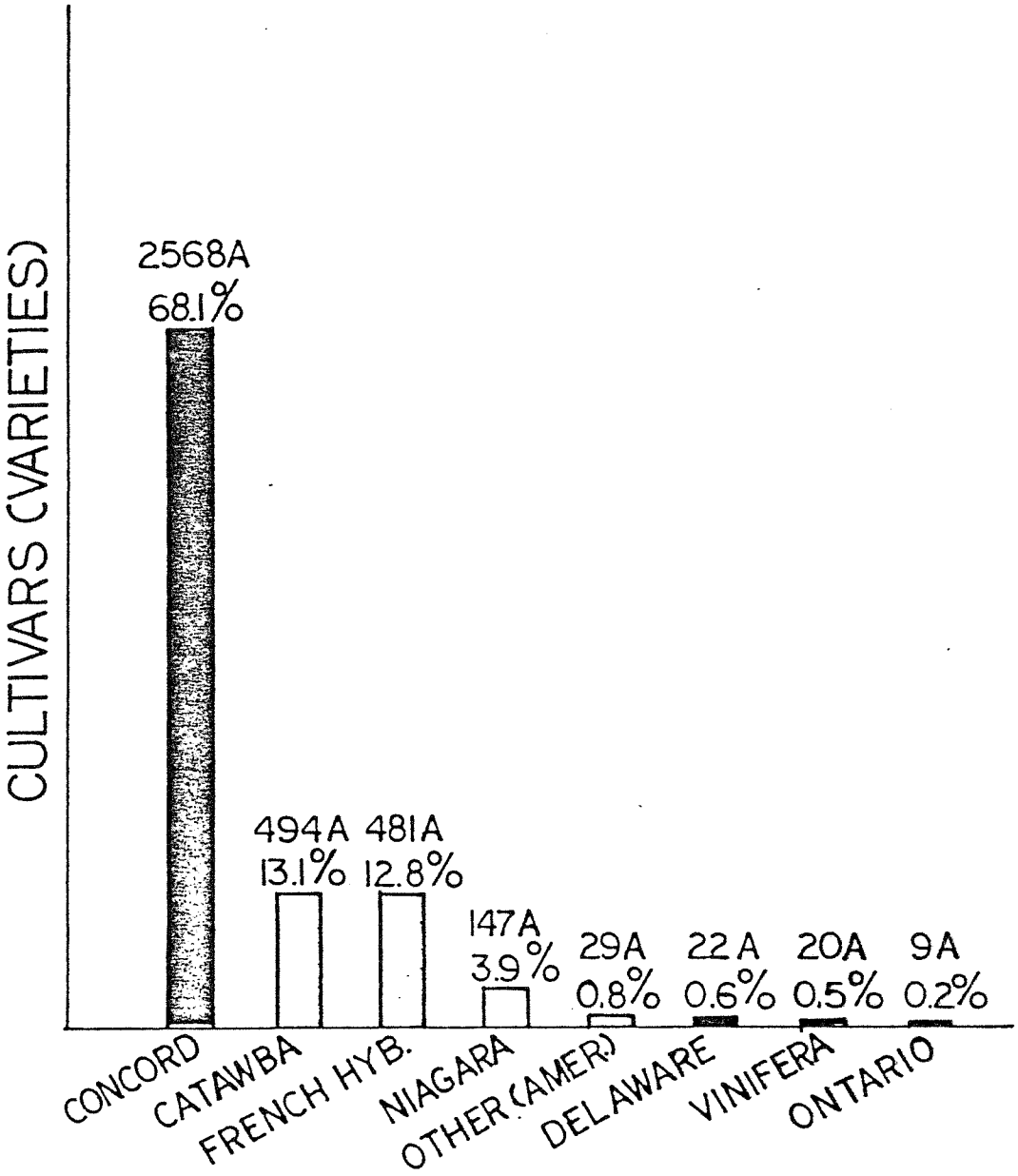


GROWERS PER COUNTY

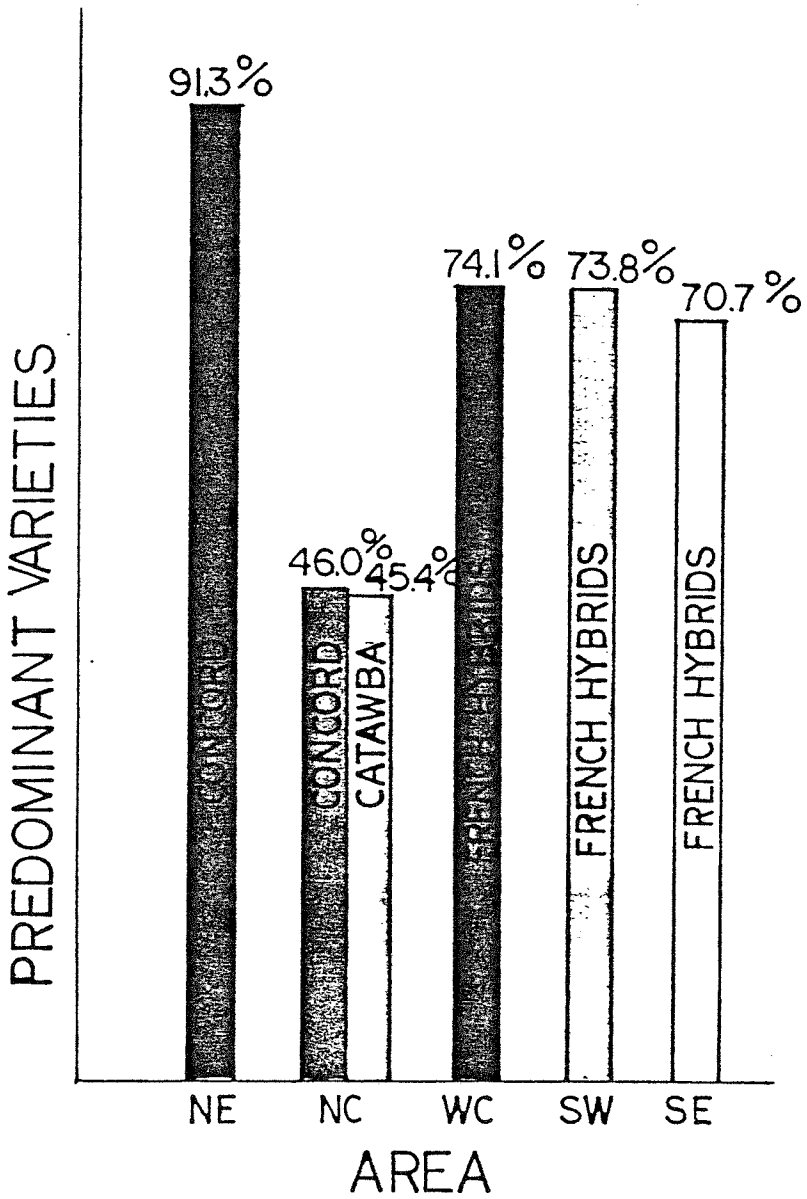

Northeast
Northcentral
Westcentral
Southwest
Southeast
Lake Erie
Ohio River
WILLIAMS
FULTON
LUCAS
OTTAWA
471
WOOD
HENRY
DEFIANCE
SANDUSKY
ERIE
121
LORAIN
254
CUYAHOGA
52
LAKE
422
ASHTABULA
1787
GEAUGA
85
TRUMBULL
PORTAGE
SUMMIT
MEDINA
HURON
SENECA
PAULDING
PUTNAM
HANCOCK
MAHONING
STARK
WAYNE
ASHLAND
9
RICHLAND
CRAWFORD
WYANDOT
VAN WERT
ALLEN
HARDIN
CARROLL
HOLMES
TUSCARAWAS
JEFFERSON
MERCER
AUGLAIZE
MARION
1
MORROW
32
KNOX
24
COSHOCTON
HARRISON
LOGAN
UNION
7
SHELBY
9
DELAWARE
LICKING
GUERNSEY
DARKE
CHAMPAIGN
4
MUSKINGUM
MIAMI
35
FRANKLIN
30
CLARK
9
MADISON
FAIRFIELD
PERRY
NOBLE
PREBLE
MONTGOMERY
GREENE
PICKAWAY
26
FAYETTE
HOCKING
BUTLER
WARREN
77
CLINTON
54
ROSS
12
HIGHLAND
HAMILTON
1
CLERMONT
102
PIKE
10
MEIGS
GALLIA
BROWN
19
ADAMS
41
SCIOTO
1
LAWRENCE
ACRES
PER
COUNTY


ACREAGE
2294 A
60.8%
907 A
21.4%
343 A
9.1%
151 A
4.0%
75 A
2.0%
NE
NC
SW
WC
SE
AREA

Ohio

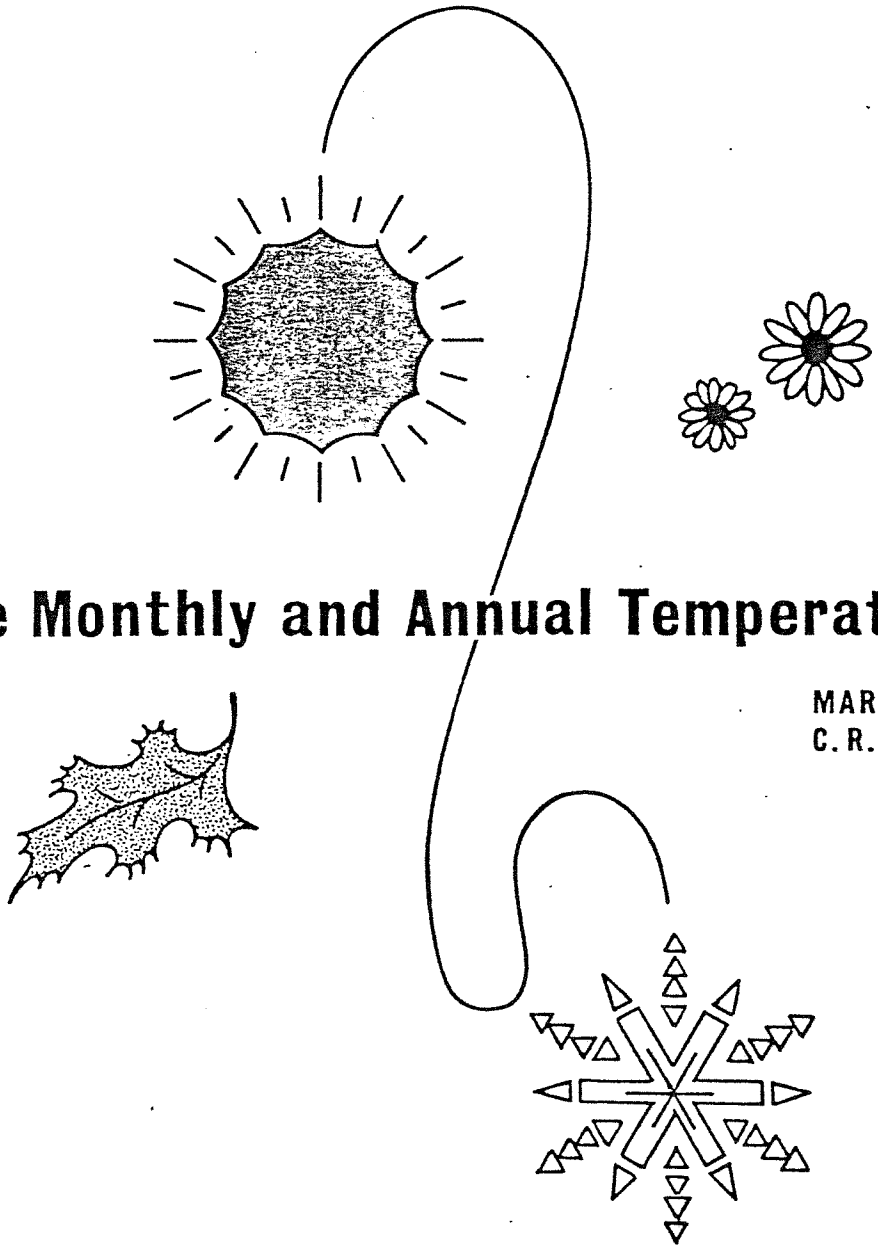

CULTIVARS (VARIETIES)
2568A
68.1%
494A
13.1%
481A
12.8%
147A
3.9%
29A
0.8%
22A
0.6%
20A
0.5%
9A
0.2%
CONCORD
CATAWBA
FRENCH HYB.
NIAGARA
OTHER (AMER.)
DELAWARE
VINIFERA
ONTARIO

Ohio


91.3%
46.0%
45.4%
74.1%
73.8%
70.7%
CONCORD
CONCORD
CATAWBA
FRENCH HYBRIDS
FRENCH HYBRIDS
FRENCH HYBRIDS
PREDOMINANT VARIETIES
NE
NC
WC
SW
SE
AREA

Ohio

RESEARCH BULLETIN 1041 NOVEMBER 1970



Extreme Monthly and Annual Temperatures in Ohio

MARVIN E. MILLER
C. R. WEAVER

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
Wooster, Ohio

buds is fairly common in Ohio. Such buds are frequently killed at temperatures of -10° F., even in midwinter (13). The survival of the flower buds when exposed to such low temperatures varies with the peach variety. For example, when exposed to a temperature of -8° F., about 90 percent of the flower buds on Halehaven, Elberta, and J. H. Hale peach trees are killed but nearly half of the buds on Oriole, Raritan Rose, and Veteran varieties of peach trees survive (3).

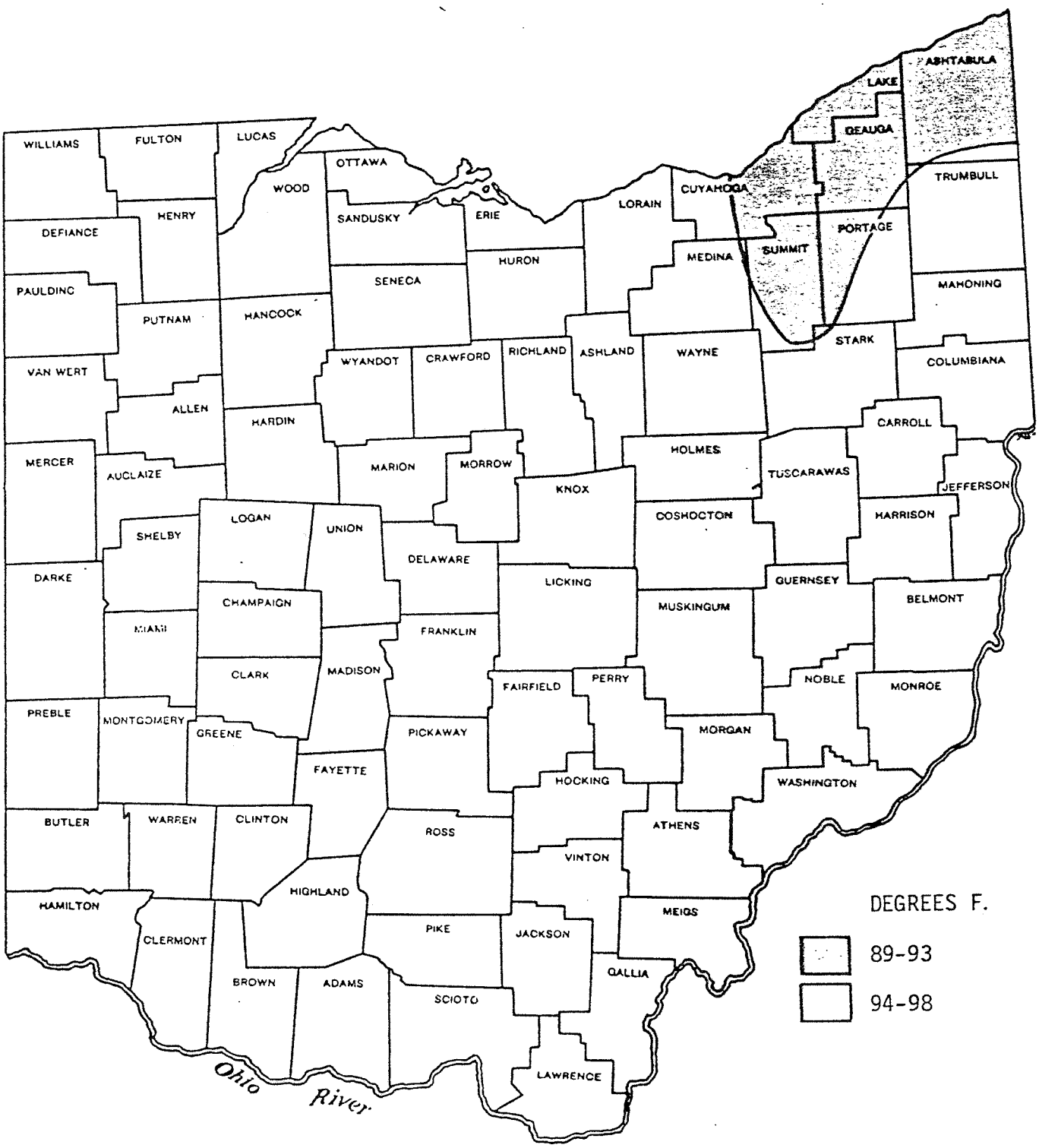


Fig. 6.—Average annual highest temperatures within Ohio.

longest duration in winter of subzero temperatures in Ohio is less than 8 hours (11), 90 percent protection (.90 probability level, Fig. 3) will be sufficient. His vehicle's radiator should therefore be protected to -20° F.

Figure 2 also represents the Ohio plant hardiness zones. Hardiness zones are areas which have approximately the same annual low temperatures. In addition to low temperatures, the inability of plants to survive severe winter conditions is related

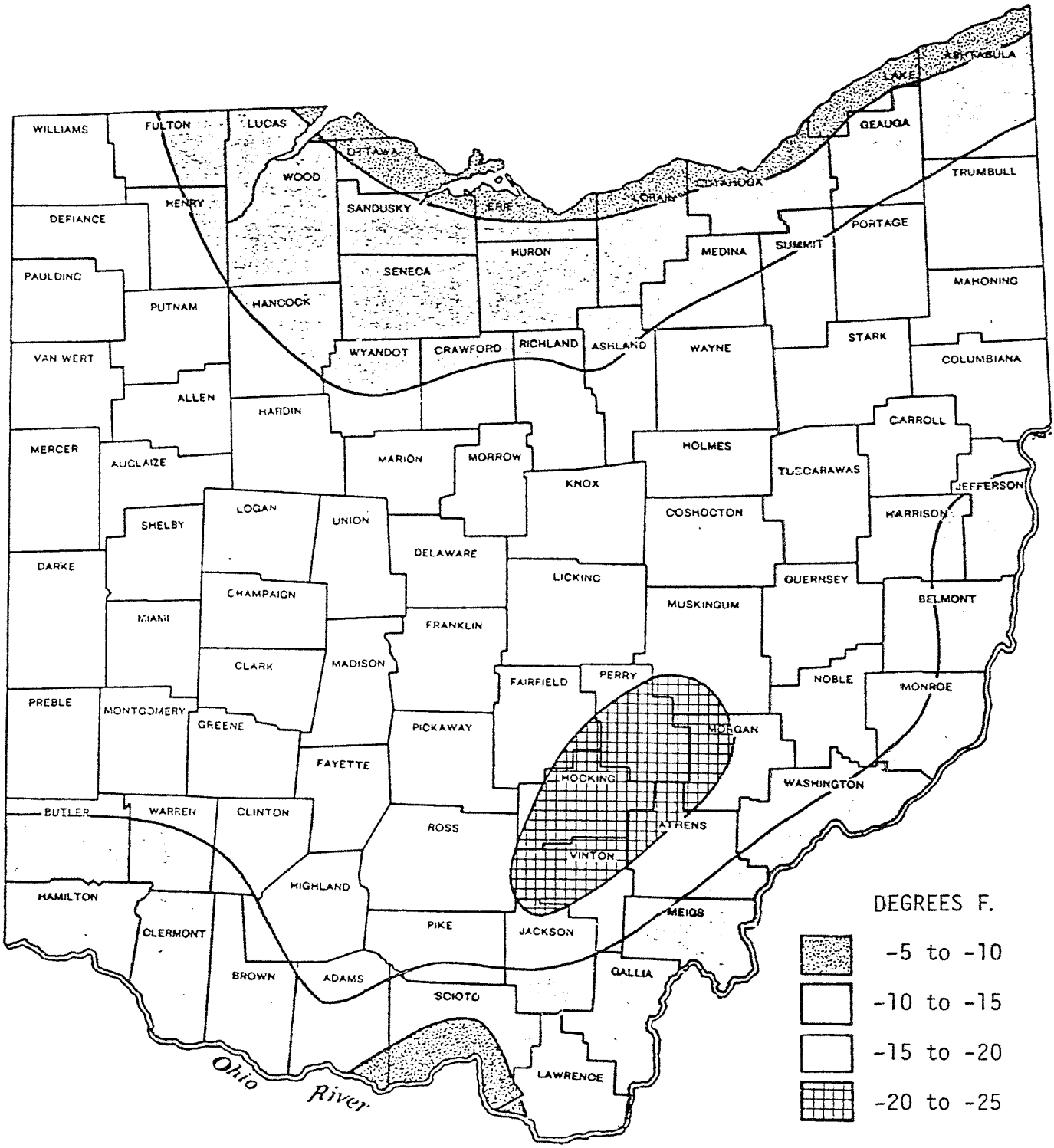


Fig. 3.—Annual low temperatures with a return period of 10 years.

type of vegetation which can survive winter temperatures. Each fall Ohio motorists are faced with the question, to what temperature should my vehicle's radiator be protected? To answer this question, the motorist must first decide the degree of safety desired and then proceed to select the protection level which corresponds to that level of safety from Figures 2-4 or from the extreme low temperature tables. For example, a Franklin County motorist may decide that since the average

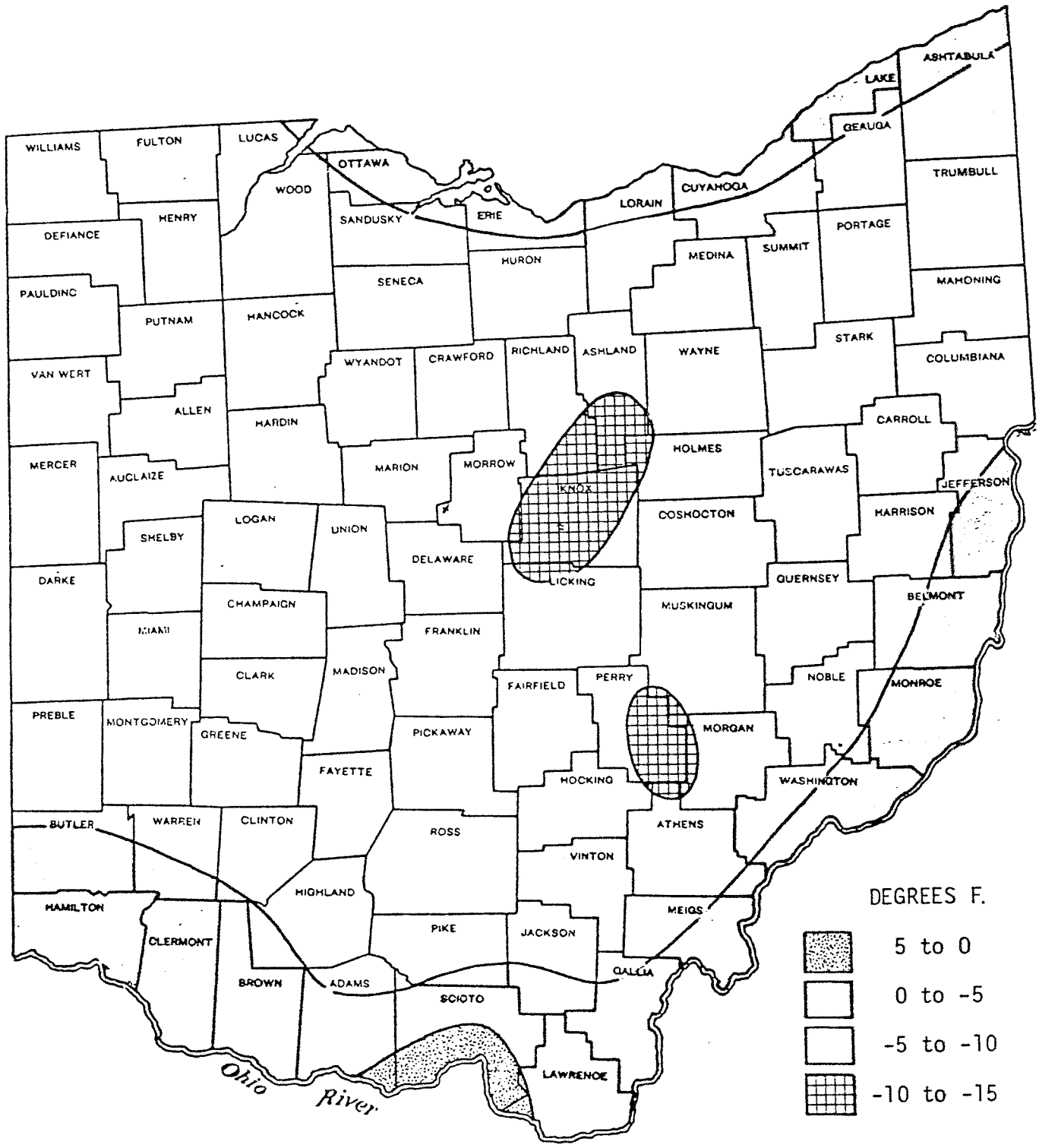


Fig. 2.—Average annual lowest temperatures within Ohio.

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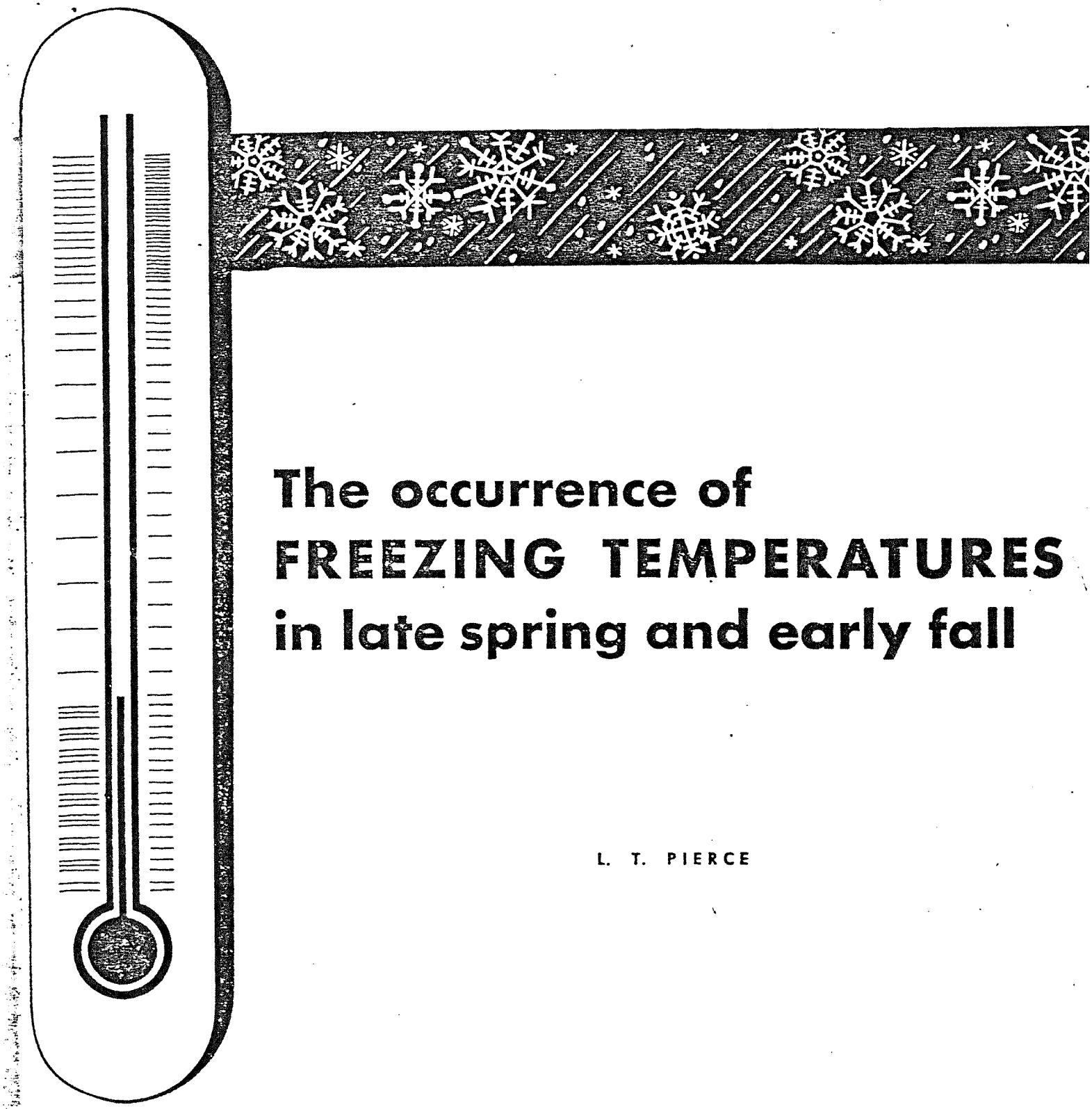

The occurrence of FREEZING TEMPERATURES in late spring and early fall

L. T. PIERCE

Ohio Agricultural Experiment Station
Wooster, Ohio

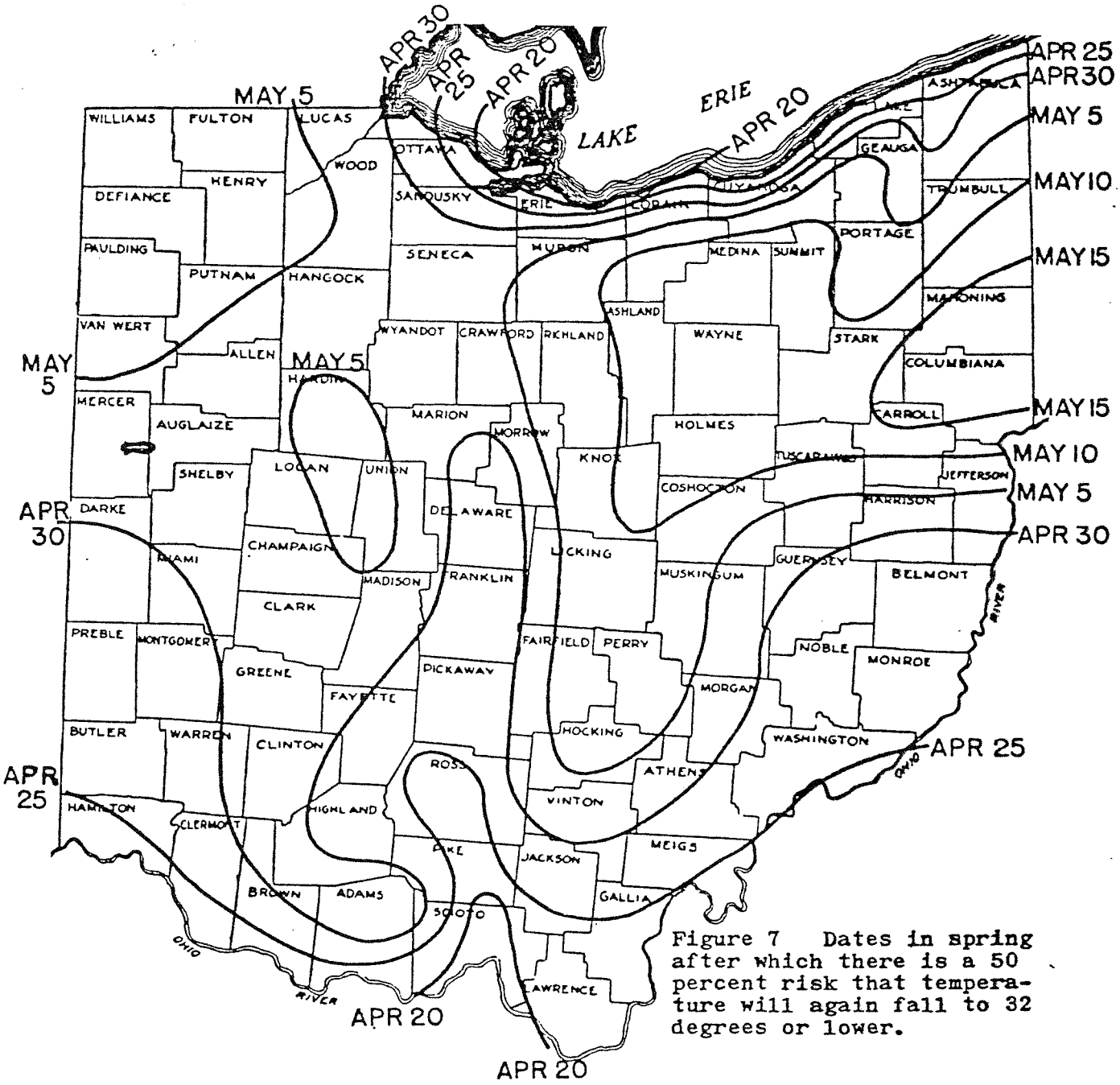

Figure 7 Dates in spring after which there is a 50 percent risk that temperature will again fall to 32 degrees or lower.

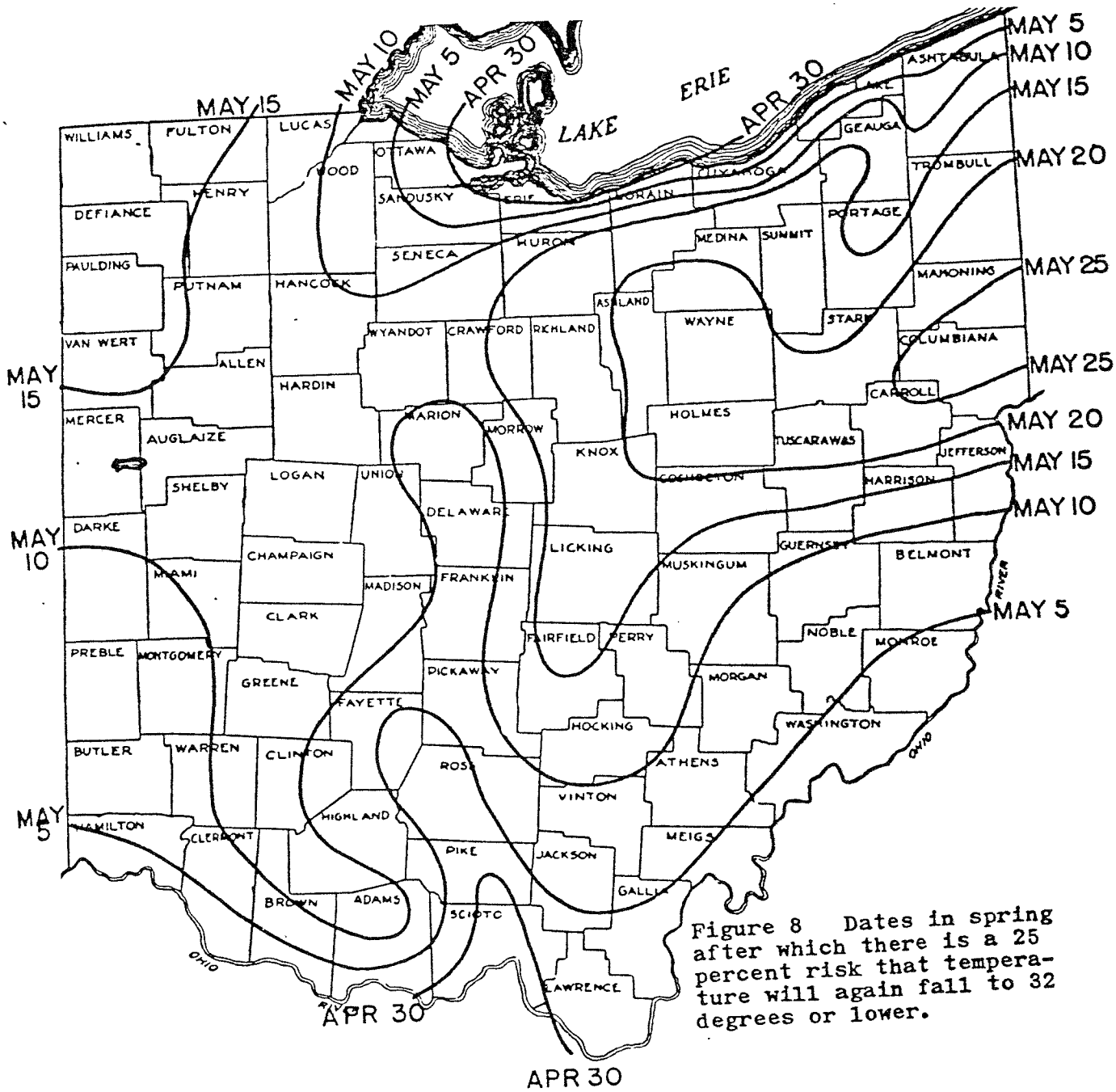

Figure 8 Dates in spring after which there is a 25 percent risk that temperature will again fall to 32 degrees or lower.

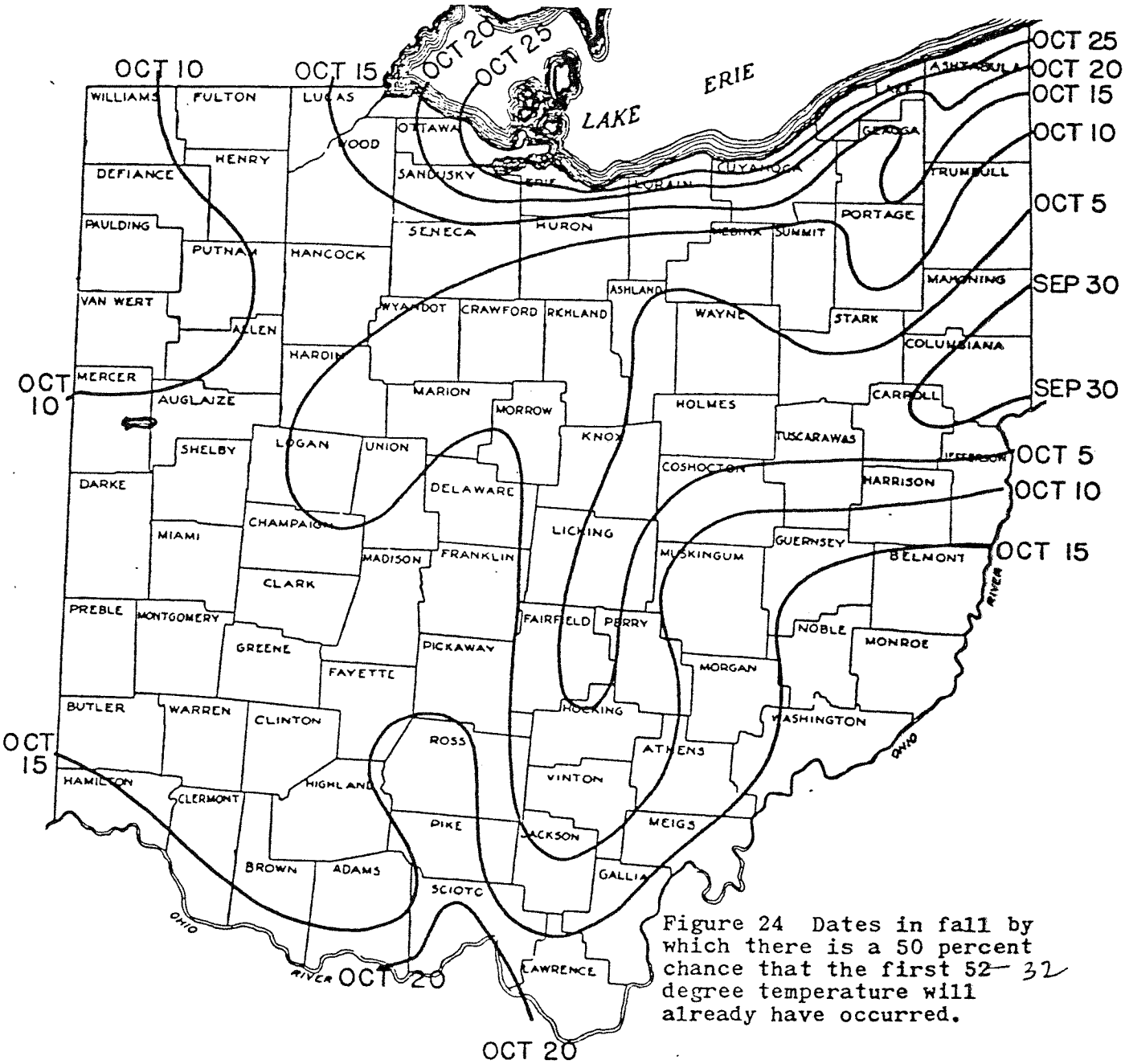

Figure 24 Dates in fall by which there is a 50 percent chance that the first 52 — 32 degree temperature will already have occurred.

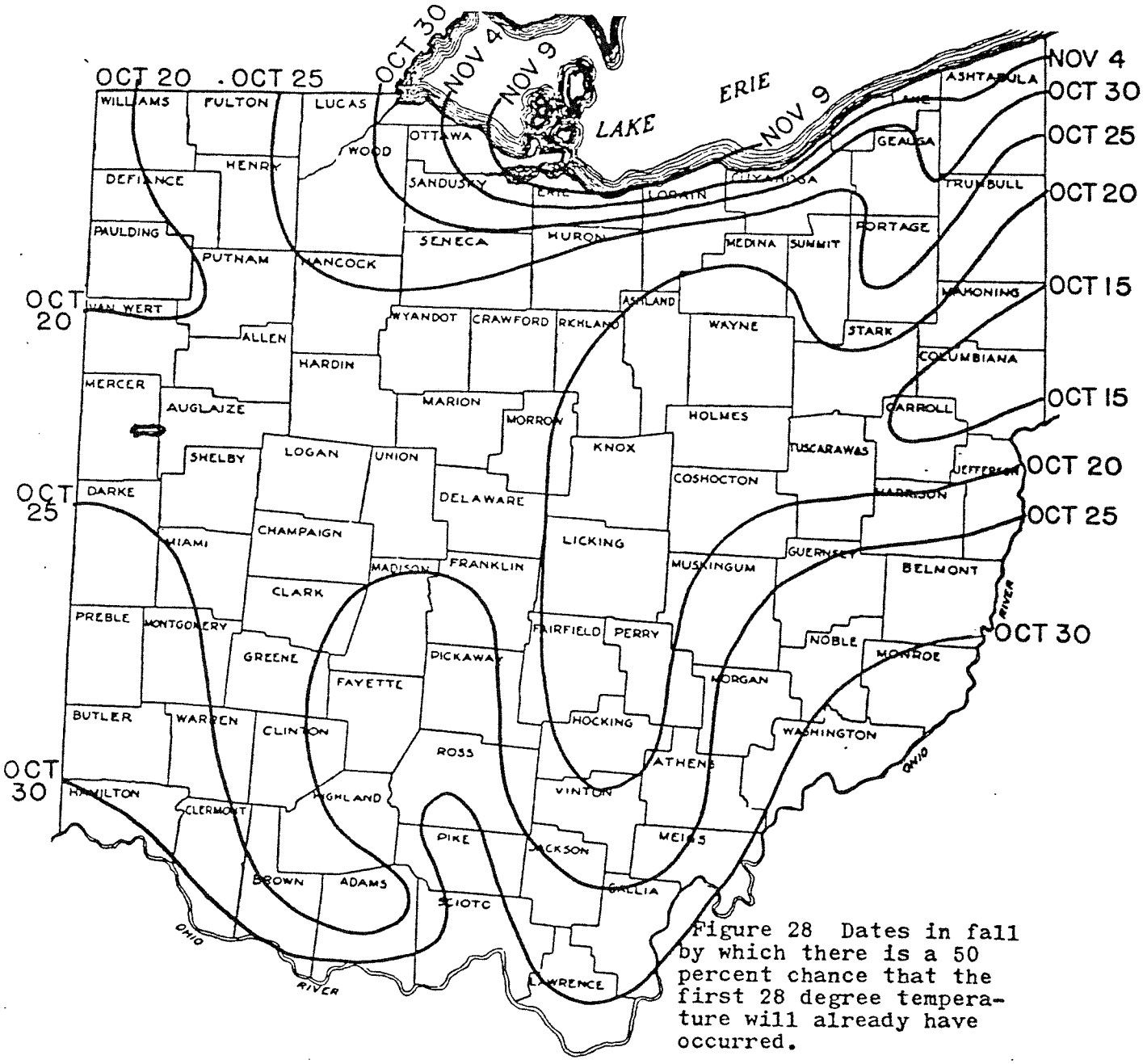

Figure 28 Dates in fall by which there is a 50 percent chance that the first 28 degree temperature will already have occurred.

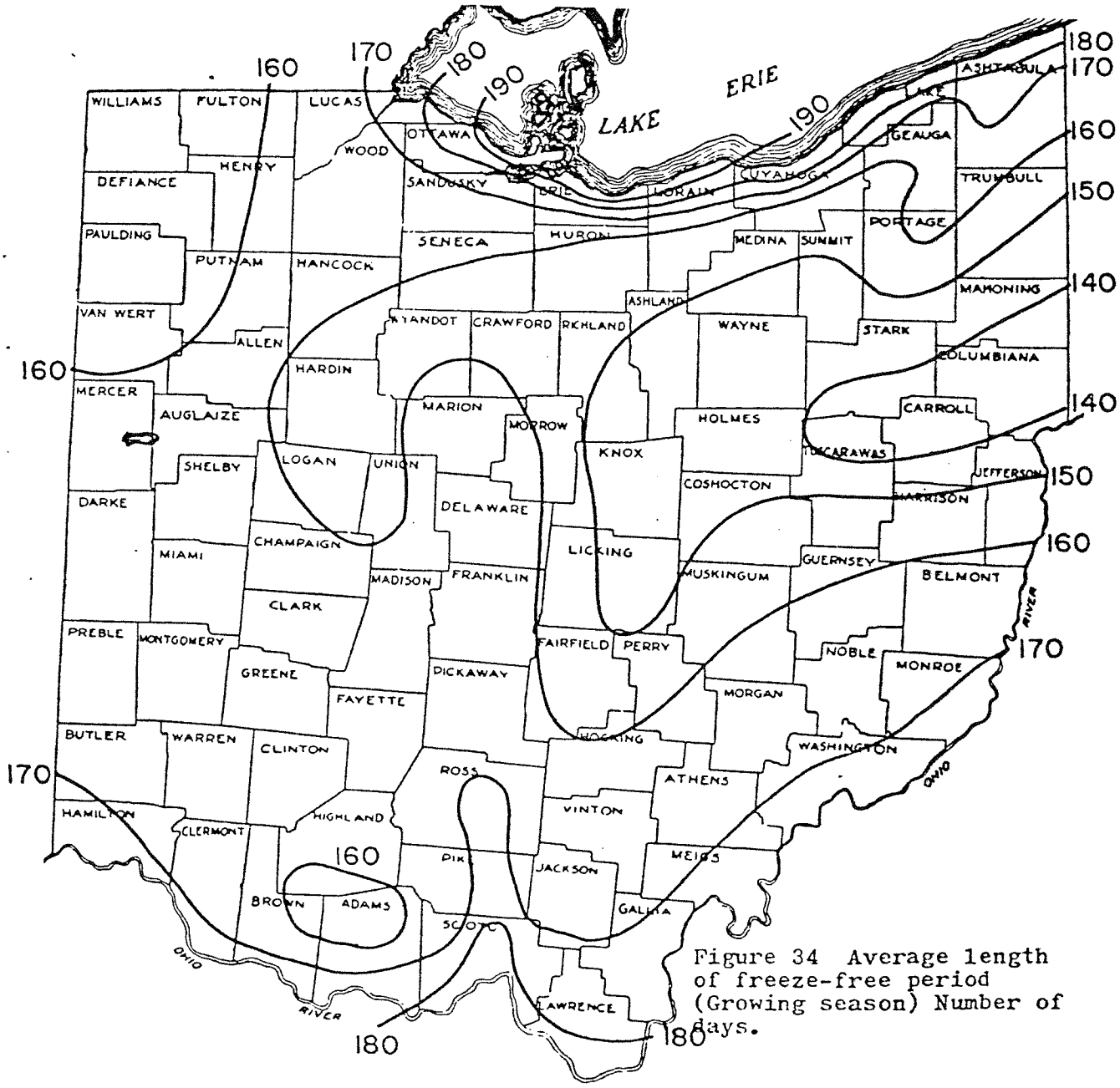

Figure 34 Average length of freeze-free period (Growing season) Number of days.