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Annual Report Of

The Kentucky Plant Pest Control Law And Its Administration

For the Year Ended June 30, 1959

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ANNUAL REPORT OF THE KENTUCKY PLANT PEST CONTROL LAW AND ITS ADMINISTRATION, FOR THE YEAR ENDED JUNE 30, 1959

by
Lee H. Townsend and Howard G. Tilson

Herein is reproduced as it appears on the statute books the Kentucky law relating to the inspection of nurseries and other plant growing businesses; the licensing of growers, dealers and agents of plants; the control or eradication of newly introduced plant pests; and the promulgation of plant pest quarantines.

KENTUCKY REVISED STATUTES-SECTIONS 249.010 to 249.990

249.010 DEFINITIONS. As used in this chapter, unless the context requires otherwise:

(1) "Commissioner" means the Commissioner of Agriculture, Labor and Statistics.
(2) "Department" means the Department of Agriculture, Labor and Statistics.
(3) "Director" means the Director of the Agricultural Experiment Station.

249.020 (1925a-1; 1925a-10) STATE ENTOMOLOGIST; ASSISTANT.

(1) The Entomologist and Botanist of the Agricultural Experiment Station shall be the State Entomologist.
(2) The State Entomologist shall serve without pay other than his salary as an officer of the Agricultural Experiment Station. He shall be paid his traveling expenses.
(3) The State Entomologist shall appoint a deputy entomologist and assistants.

249.030 (1925a-1; 1925a-10) ENTOMOLOGIST MAY MAKE RULES AND PUBLISH DATA.

(1) The State Entomologist, with the advice and consent of the director and the commissioner, may prescribe, modify and enforce rules, regulations and orders needed to carry out KRS 249.020 to 249.100
(2) The State Entomologist may publish bulletins, circulars and reports containing information concerning inspections, insects and plant diseases.
(3) The rules and regulations and publications shall be printed from time to time and furnished to interested persons.

249.040 (1925a-1) ESTABLISHMENT OF QUARANTINES.

The State Entomologist shall, with the advice and consent of the director and the commissioner, establish and maintain quarantines against the importation into this state of any trees, plants and parts of plants,

whether nursery grown or not, from any state or from any county within the state where such plants or parts of plants are known to be affected with dangerous insect pests or plant diseases. He shall designate in announcements of quarantine the area quarantined, whether it constitutes a part of this state or some other state.

249.050 (1925a-2) INSPECTION OF ARTICLES AND PREMISES: DISEASED PLANTS TO BE DESTROYED.

Whenever the State Entomologist or his deputy has reason to believe or is credibly informed that at any place within the state there has been introduced or offered for sale trees, plants or parts of plants infected or infested with diseases or destructive pests that are likely to spread, he shall investigate the suspected articles and premises. If they are found so infested or infected, he shall notify the owner or possessor, in writing, of the nature of the infestation, specifying the insects or diseases that have been found and demand that within a reasonable specified time the affected articles or premises be disinfected or destroyed by fire under the direction of the State Entomologist, his deputy or assistant and at the expense of the owner or possessor.

249.060 (1925a-8) NURSERIES, DEALERS AND AGENTS TO BE LICENSED.

(1) Every resident nursery or agency selling nursery stock in this state shall annually file credentials with the State Entomologist. If these credentials are satisfactory to the State Entomologist, the director and the commissioner, the State Entomologist shall upon payment of a fee of five dollars by the nursery or agency issue it a license authorizing it to do business in the state.

(2) Every nonresident nursery and every agent, dealer or seller of trees representing nonresident nurseries or dealers shall annually file credentials with the State Entomologist. These credentials shall include the names of nurseries, nurserymen or other persons represented. If these credentials are satisfactory to the State Entomologist, the director and the commissioner, the State Entomologist shall issue the license.*

(3) Any person soliciting orders for or delivering trees or plants in this state shall carry with him a copy of his license from this state, which he shall show to prospective buyers, purchasers, county officials or agents of the State Entomologist on demand.

249.070 (1925a-3; 1925a-4) ENTOMOLOGIST TO INSPECT NURSERIES AND ORDER DESTRUCTION OF PESTS. SHIPMENT OF AFFECTED STOCK PROHIBITED.

(1) All nurseries where trees, vines, plants or other nursery stock are grown and offered for sale shall be inspected by the State Entomologist or by his assistant once each year. He shall notify the owners of such nurseries, in writing, of the presence of any San Jose scale or other dangerous pests on the stock of these nurseries and shall also notify, in writing, the owner of any affected nursery stock to take such measures on or before a certain day for the destruction of insect or fungus enemies of nursery stock as have been shown to be effectual.

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* Only resident nurserymen and dealers are required to pay the five dollars license fee.

(2) The owner of the affected nursery shall, within the time specified, take such steps for the destruction of injurious insects or fungus enemies present as will exterminate them.

(3) No person shall ship or deliver any such nursery stock affected with insects or fungus enemies before treatment.

249.080 (1925a-5) ENTOMOLOGIST TO ISSUE CERTIFICATE FOR STOCK FREE FROM INSECTS AND FUNGUS.

When the State Entomologist examines any trees, vines, plants or other nursery stock and finds the stock free from dangerously injurious insects and fungus enemies, he shall make out and deliver to the owner of the stock a certificate stating that he has inspected the stock and that he believes it to be free from dangerously injurious insects and fungus enemies. He shall keep in his office, for the information of anyone interested, copies of all valid certificates issued by him.

249.090 (1925a-6) SHIPMENTS TO BE ACCOMPANIED BY INSPECTION CERTIFICATES.

Whenever a resident nurseryman or seller of trees, vines, plants or other nursery stock ships or delivers such goods, he shall send on each package so shipped or delivered a printed copy of the certificate issued to him by the State Entomologist stating that the stock has been inspected as required by law and is believed to be free from dangerously injurious insect or fungus enemies.

249.100 (1925a-7) NONRESIDENTS TO FILE AND IMPORTED PLANTS TO BEAR INSPECTION CERTIFICATES.

Every nonresident nurseryman or other person intending to ship into this state trees, plants or parts of plants, whether nursery grown or not, shall file with the State Entomologist a copy of a valid certificate from a state or United States Government inspector showing that the trees, plants or their parts have been inspected and that he is authorized to sell and ship or transport them. All packages of trees, plants or parts of plants shall bear a copy of a certificate of inspection from an official inspector. Transportation companies within the state shall notify the State Entomologist at once when any such trees or plants are received by them without a valid certificate. Nursery stock or other trees, plants or parts of plants shipped into this state in violation of a state or United States Quarantine may be seized and destroyed or returned to the shipper at the expense of the owner or possessor.

249.200 (42g-1; 42g-2) JAPANESE BEETLE CONTROL.

The State Entomologist shall adopt and carry out such measures as he deems advisable to protect crops from the ravages of the Japanese beetle (Popillia japonica). He may employ help, purchase materials and enforce such regulations as in his descretion are necessary to accomplish the purpose.

249.990 (42f-4; 200; 1923; 1925a-4; 1925a-9) PENALTIES.

(1) Any person who violates any of the provisions of KRS 249.020 to 249.100 or hinders the carrying out of any of the provisions of those

sections shall be fined not less than twenty-five dollars nor more than five hundred dollars.

(2) Any fine imposed for a violation of subsection (3) of KRS 249.070 may be recovered in the county in which the nursery is situated or the county to which the nursery stock is shipped.

SUMMARY OF REQUIREMENTS OF KENTUCKY NURSERY INSPECTION LAW

(1) It shall be unlawful to sell or offer for sale uninspected or uncertified nursery stock. A certificate of inspection indicates freedom from certain injurious insects and plant diseases but does not vouch for trueness to variety nor for grade and conditions of any nursery stock.

(2) Growers of nursery stock for sale or shipment shall apply in writing before June 1 of each year to the State Entomologist, Kentucky Agricultural Experiment Station, Lexington, for inspection services.

(3) Every dealer in nursery stock shall secure a nursery dealer's permit. Before this is issued, however, he must furnish an affidavit that he will buy and sell only stock that is certified and will maintain with the State Entomologist a correct and complete list of all sources from which he gets his stock. Landscape architects and tree movers who handle nursery stock are classified as dealers.

(4) Every person who solicits orders for nursery stock shall obtain and carry an agent's permit which is secured only upon request of the nurseryman or dealer to be represented.

(5) All packages or bundles of nursery stock shipped by common carrier must have attached a copy of the inspection certificate or permit.

(6) Certificates and permit may be revoked for cause.

(7) Fees shall be paid as follows: Inspection certificate, $5; dealer's permit, $5. Agents' permits and nonresident nurserymen's certificates are furnished without cost. Fees shall accompany application. Application blanks may be obtained from the State Entomologist.

(8) Nonresident nurserymen shall file copies of their state certificate and secure nonresident permits. Every package of nursery stock coming into Kentucky shall have a valid inspection certificate attached to the package. Nonresident nurserymen, dealers and agents shall carry their Kentucky permits when soliciting orders or delivering nursery stock in Kentucky.

(9) All certificates and permits automatically expire June 30 following date of issuance.

"NURSERY STOCK" DEFINED

Nursery stock includes all trees, shrubs, vines; roses, strawberry, raspberry and blackberry plants; herbaceous perennial plants and roots; grass "plugs", "sprigs" and sod; ornamental bulbs, corms, tubers and

rhizomes; and any part of the above groups of plants capable of disseminating injurious insects and plant diseases. For regulatory purposes the term "Nursery Stock" includes all plants which grow out of doors and live more than one year, whether nursery grown or native.

REQUIREMENTS FOR SHIPMENT OF NURSERY STOCK INTO OTHER STATES

A summary of the major requirements for shipping nursery stock into other states is given on the following page. It will be noted that most states require the out-of-state shipper to file a copy of his nursery inspection certificate with the proper administrative authority before shipments are made. Only three states require filing fees, except under special conditions, that are noted in a table which follows.

Special shipping tags are required by the following states and will be furnished by them at a nominal cost to the shippers: Arkansas ($2 per 100 tags); Florida ($3.24 per 100 tags); and New Mexico ($1.25 per 100 tags).

A special tag should be secured and attached to each bundle of nursery stock shipped to any of the three states listed.

State	State of Origin Certificate Filed	Nurseryman's Filing Fee	Agent's Fee	Special Tag	Posted Bond
Alabama	Yes	Reciprocal	$1	No	None
Arizona	No	None	None	No	None
Arkansas	Yes	Reciprocal	$1	Yes	Reciprocal
California	No	None	None	No	None
Canada	Yes	None	None	Yes[1]	None
Colorado	Yes	None	None	No	None
Connecticut	No	None	None	No	None
Delaware	Yes	None	None	No	None
Florida	Yes	None	None	Yes	None
Georgia	Yes	Reciprocal	$1	No	None
Idaho	Yes	$5 to $15	$1	No	$1000
Illinois	Yes	None	None	No	None
Indiana	Yes	None	$1	No	None
Iowa	Yes	Reciprocal	None	No	None
Kansas	Yes	Reciprocal	None	No	None
Kentucky	Yes	None	None	No	None
Louisiana	No	None	None	No	None
Maine	Yes	None	None	No	None
Maryland	Yes	Reciprocal	None	No	None
Massachusetts	Yes	None	None	No	None
Michigan	Yes	$15 or Reciprocal[2]	$1	No	None
Minnesota	Yes	Reciprocal	Reciprocal	No	None
Mississippi	Yes	Reciprocal	None	No	None
Missouri	Yes	None	None	No	None
Montana	Yes	$5 to $25	$25	No	None
Nebraska	Yes	Reciprocal	$1	No	None
Nevada	No	None	None	No	None
New Hampshire	No	None	None	No	None
New Jersey	Yes	Reciprocal	None	No	None
New Mexico	Yes	$10	$25	Yes	None
New York	Yes	None	None	No	None
North Carolina	Yes	Reciprocal	None	No	$1000[3]
North Dakota	Yes	Reciprocal	None	No	None
Ohio	Yes	Reciprocal	$1	No	None
Oklahoma	Yes	Reciprocal	$1	No	None
Oregon	No	None	$1	No	None
Pennsylvania	Yes	None	None	No	None
Rhode Island	Yes	None	None	No	None
South Carolina	Yes	None	None	No	None
South Dakota	Yes	Reciprocal	$1	No	None
Tennessee	Yes	Reciprocal	Reciprocal	No	$5000[3]
Texas	Yes	Reciprocal	None	No	None
Utah	Yes	$10[2]	None	No	None
Vermont	No	None	None	No	None
Virginia	No	Reciprocal	Reciprocal	No	None
Washington	No	Reciprocal	$1	No	None
West Virginia	Yes	None	$1	No	None
Wisconsin	Yes	None	None	No	None
Wyoming	Yes	Reciprocal	None	No	None

[1]Secure special permit and instruction from officer in charge before making shipment.
[2]For nurserymen who operate through agents.
[3]For nurserymen who promise maintenance.

PLANT QUARANTINE OFFICIALS OF THE STATES, TERRITORIES, DISTRICT OF COLUMBIA, CANADA, AND MEXICO

Alabama	B. P. Livingston, Chief, Division of Plant Industry, State Department of Agriculture and Industries, P. O. Box 220, Montgomery 1
Alaska	Hon. James W. Wilson, Commissioner of Agriculture, P. O. Box 1828, Palmer
Arizona	W. T. Mendenhall, State Entomologist, P. O. Box 6246, Phoenix
Arkansas	Paul H. Millar, Chief Inspector, State Plant Board, Little Rock
California	A. P. Messenger, Chief, Bureau of Plant Quarantine, State Department of Agriculture, Sacramento 14
Canada	W. N. Keenan, Chief, Division of Plant Protection, Department of Agriculture, Ottawa, Ontario
Colorado	F. Herbert Gates, State Entomologist, Bureau of Plant and Insect Control, 3130 State Museum, Denver 11
Connecticut	Nealy Turner, State Entomologist, Agricultural Experiment Station, Box 1106, New Haven 4
Delaware	W. R. Hickman, Nursery Inspector, State Board of Agriculture, Dover
District of Columbia.	P. X. Peltier, Plant Quarantine Division, U. S. Department of Agriculture, Washington 25
Florida	Dr. W. G. Cowperthwaite, Plant Commissioner, State Plant Board, Gainesville
Georgia	W. E. Blasingame, Director of Entomology, State Capitol, Atlanta 3
Hawaii	William C. Look, Chief Plant Inspector, Board of Commissioners of Agriculture and Forestry, P. O. Box 2520, Honolulu 4
Idaho	Leland Fife, Director, Bureau of Plant Industry, State Department of Agriculture, Boise
Illinois	H. F. Seifert, Horticultural Inspection Supervisor, Room 300, Professional Arts Building, Glen Ellyn
Indiana	John J. Favinger, State Entomologist, 311 West Washington Street, Indianapolis 9
Iowa	Dr. H. M. Harris, State Entomologist, 251 Science Building, Iowa State College, Ames
Kansas, North	Dr. Herbert Knutson, State Entomologist, State College of Agriculture, Manhattan
South	Dr. Charles D. Michener, State Entomologist, University of Kansas, Lawrence
Kentucky	Dr. Lee H. Townsend, State Entomologist, College of Agriculture and Home Economics, University of Kentucky, Lexington

Louisiana	E. A. Cancienne, State Entomologist, State Department of Agriculture and Immigration, Box 4153, Capitol Station, Baton Rouge 4
Maine	Paul Eastman, Chief, Division of Plant Industry, State Department of Agriculture, Augusta
Maryland	Dr. George S. Langford, State Entomologist, University of Maryland, College Park
Massachusetts	Quincy S. Lowry, Assistant Director, Division of Plant Pest Control and Fairs, 41 Tremont Street, Boston 8
Mexico	Ing. Benjamin Cortina Carmona, Director General de Defensa Agricola, Balderas Num. 94, Mexico D. F.
Michigan	C. A. Boyer, Chief, Bureau of Plant Industry, State Department of Agriculture, Lansing 13
Minnesota	W. M. Anderson, Acting Director, Bureau of Plant Industry, State Department of Agriculture, Dairy and Food, University Farm, St. Paul 1
Mississippi	Dr. R. E. Hutchins, Entomologist, State Plant Board, State College
Missouri	Julius R. Anderson, State Entomologist, State Department of Agriculture, Jefferson City
Montana	R. O. Young, Chief, Division of Horticulture, State Department of Agriculture, Labor and Industry, Missoula
Nebraska	C. J. Walstrom, State Entomologist, Bureau of Plant Industry, State Department of Agriculture and Inspection, Lincoln 9
Nevada	Lee M. Burge, Director, Division of Plant Industry, State Department of Agriculture, P. O. Box 1027, Reno
New Hampshire	Dr. J. G. Conklin, State Entomologist, Insect and Plant Disease Suppression and Control, State Department of Agriculture, Durham
New Jersey	Frank A. Soraci, Director, Division of Plant Industry, State Department of Agriculture, Trenton 8
New Mexico	Dallas Rierson, Director, Regulatory Activities, College of Agriculture and Mechanic Arts, State College
New York	Edwin W. Kirk, Director, Bureau of Plant Industry, State Department of Agriculture and Markets, Albany 1
North Carolina . . .	Dr. C. H. Brannon, State Entomologist, State Department of Agriculture, Raleigh
North Dakota	Dr. James R. Dogger, State Entomologist, Department of Entomology, North Dakota Agricultural College, Box 2438, Fargo
Ohio	John Baringer, Chief, Division of Plant Industry, State Department of Agriculture, Columbus 15
Oklahoma	Clyde A. Bower, Director, Division of Entomology and Plant Industry, Oklahoma State Board of Agriculture, Oklahoma City 5
Oregon	Frank McKennon, Chief, Division of Plant Industry, State Department of Agriculture, Agricultural Building, Salem

Pennsylvania	Dr. T. L. Guyton, Director, Bureau of Plant Industry, State Department of Agriculture, Harrisburg
Puerto Rico	Luis A. Catoni, Director, Plant Quarantine Service, Department of Agriculture and Commerce, San Juan
Rhode Island	Alvin J. Lannon, Chief, Division of Entomology and Plant Industry, State Department of Agriculture and Conservation, State House, Providence 2
South Carolina . . .	L. H. Senn, Entomologist, State Crop Pest Commission, Clemson
South Dakota	Warren Miller, Director, Division of Plant Industry, Department of Agriculture, Pierre
Tennessee	Howard L. Bruer, State Entomologist and Plant Pathologist, Department of Agriculture, 410 State Office Building, Nashville 3
Texas	Charles Chapman, Chief, Division of Plant Quarantine, State Department of Agriculture, Austin
Utah	Earl Hutchings, State Supervising Inspector, State Department of Agriculture, Salt Lake City
Vermont	John W. Scott, Director, Division Plant Pest Control, State Department of Agriculture, Montpelier
Virginia	C. R. Willey, State Entomologist and Director Division of Plant Industry, 1112 State Office Building, Richmond 19
Washington	William H. Shaw, Supervisor of Horticulture, State Department of Agriculture, Olympia
West Virginia	F. Waldo Craig, Entomologist, State Department of Agriculture, Charleston 5
Wisconsin	E. L. Chambers, State Entomologist, State Department of Agriculture, 448 West Washington Avenue, Madison 3
Wyoming	Everett Spackman, State Entomologist, State Department of Agriculture, Cheyenne

INTERSTATE SHIPMENT OF BARBERRY AND MAHONIA RESTRICTED

Federal Quarantine Number 38, because of Black Stem Rust, was amended by the Secretary of Agriculture to become effective February 11, 1950. Among the important changes in regulations are: (1) the elimination of the requirement to place a special permit tag on each package of barberry, mahonia or mahoberberis shipped interstate; (2) shipments of seeds and fruits of approved species and varieties when produced within the eradication states can be moved under certificate only if going to another eradication state. Seed or fruit produced outside the eradication states cannot be shipped into any of the eradication states.

The requirements of Federal Quarantine Number 38 are summarized as follows: (1) The eradication states are: Colorado, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, Pennsylvania, South Dakota, Virginia, Washington, West Virginia, Wisconsin and Wyoming; (2) Barberry, mahonia and mahoberberis, in any variety, can be shipped interstate (to any state) only

under certificate issued by the Plant Pest Control Branch; (3) Application for Federal certificate must be filed in duplicate not later than May 15 each year with the Quarantine Division of Plant Disease Control, Washington 25, D. C.; (4) Only species and varieties known to be rust resistant and approved by the Branch will be acceptable for certification. The list of approved species and varieties is revised from time to time as new varieties prove to be resistant to stem rust. Species and varieties not known to be resistant to rust cannot be shipped interstate and growers who have such rust susceptible species will be required to destroy them before permits to ship approved varieties are granted; (5) The following species and varieties of barberry, mahonia and mahoberberis are designated as rust resistant:

SCIENTIFIC NAME	COMMON NAME
Berberis ariod-calida	
B. beaniana	Bean's Barberry
B. buxifolia	Magellan Barberry
B. buxifolia nana	Dwarf Magellan Barberry
B. calliantha	- - - - - -
B. candidula	Paleleaf Barberry
B. chenaulti	Chenault Barberry
B. circumserrata	Cutleaf Barberry
B. concinna	Dainty Barberry
B. darwini	Darwin Barberry
B. formosana	- - - - - -
B. franchetiana	- - - - - -
B. gagnepaini	Black Barberry
B. gilgiana	Wildfire Barberry
B. horvathi	- - - - - -
B. hybrido-gagnepaini	False Black Barberry
B. insignis	- - - - - -
B. julianae	Wintergreen Barberry
B. koreana	Korean Barberry
B. lempergiana	- - - - - -
B. lepidifolia	- - - - - -
B. linearifolia	- - - - - -
B. linearifolia var. Orange King	Jasperbells Barberry
B. lologensis	- - - - - -
B. manipurana	- - - - - -
B. pallens	Pallid Barberry
B. potanini	Longspine Barberry
B. renton	- - - - - -
B. replicata	Curlleaf Barberry
B. sanguinea	Red-pedicel Barberry
B. sargentiana	Sargent Barberry
B. stenophylla	Rosemary Barberry
B. stenophylla diversifolia	- - - - - -
B. stenophylla gracilis	- - - - - -
B. stenophylla irwini	Irwin Barberry
B. stenophylla nana compacta	Coralina Barberry
B. telomaica artisepala	- - - - - -
B. thunbergi D. C.	Japanese Barberry
B. thunbergi atropurpurea	Redleaf Japanese Barberry
B. thunbergi atropurpurea erecta	- - - - - -
B. thunbergi atropurpurea nana	- - - - - -

SCIENTIFIC NAME	COMMON NAME
Berberis arido-calida	
B. thunbergi erecta	Truehedge Columnberry
B. thunbergi "globe"	- - - - - -
B. thunbergi "golden"	- - - - - -
B. thunbergi maximowiczi	Coral Japanese Barberry
B. thunbergi minor	Box Barberry
B. thunbergi pluriflora	Flame Barberry
B. thunbergi "thornless"	- - - - - -
B. thunbergi "variegata"	- - - - - -
B. thunbergi xanthocarpa	- - - - - -
B. triacanthorphora	Threespine Barberry
B. verruculosa	Warty Barberry
B. virgatorum	- - - - - -
B. workingensis	- - - - - -
B. xanthoxylon hort	- - - - - -
Mahoberberis aqui-candidula	
M. aqui-sargentiae	- - - - - -
M. miethkeana	- - - - - -
Mahonia aquifolium	Oregongrape Mahonia
M. bealei	Leatherleaf Mahonia
M. compacta	- - - - - -
M. dictyota	Netvein Mahonia
M. fortunei	Chinese Mahonia
M. lomarifolia	- - - - - -
M. nervosa	Cascades Mahonia
M. pinnata	Cluster Mahonia
M. repens	Creeping Mahonia

PLANT IMPORTATION

Under provisions of Federal Quarantine Number 37 certain limitations are placed under the importation of plants and seeds from foreign countries. Anyone wishing to import nursery stock, plants or seeds must first obtain a permit from the Plant Quarantine Branch, U. S. D. A., 209 River Street, Hoboken, New Jersey. In applying for a permit to import plant material the following information is required: (a) The name and location of the producer from whom the plants or seeds are to be secured; (b) the name and address of the person or firm to which the seeds or plants are to be shipped; (c) the number and genus of the plants or seeds for which the permit is desired.

All restricted plants imported under the conditions listed above are limited in size and age to the youngest and smallest which can be successfully freed from soil about their roots, transported to the United States and established in this country with a reasonable degree of success. Certain classes of plants permitted entry under quarantine 37 are required to be grown by the importer under post entry inspection regulations. Such plants are not released to the trade until such time as their freedom from plant diseases and insect pests has been established. The plants are therefore grown for one or more years in a place where the state inspector may have access to them for inspection purposes

for such time as appears necessary. When their freedom from pests and diseases has been established, the plants under quarantine are released.

OAK WILT

Oak wilt disease (Endoconidiophora fagacearum) is now well established in the woodlands of Eastern Kentucky. The disease is caused by a fungus organism that can be identified by plant pathologists in one to two year old vascular tissue from infected trees.

Varieties of the red and black groups seem to become infected with oak wilt more readily than white and burr oaks, although all species and varieties of oaks are susceptible to the disease.

The first symptoms in the red and black oaks are shown by the appearance of leaves on the upper branches. They show dull light green color and curl upward. Later the leaves may turn yellow or reddish brown before falling. All leaves may fall within a month after first symptoms occur. In white and burr oaks the disease develops more slowly with one or more branches near the top showing disease symptoms first.

Spread of the disease from diseased to healthy trees within native stands of oaks can occur through natural root grafts or unions. During recent years it has been proven that certain insects are capable of carrying the disease from tree to tree and that even squirrels might possibly spread the disease.

As the oak wilt fungus develops under the bark of infected trees, fungus cushions or mats are formed. These mats enlarge and thicken, thereby creating sufficient pressure to crack the bark and separate it from the wood. As soon as the cracks are formed they are invaded by several species of sap beetles known as Nitidulids. These beetles, as well as the common fruit flies, are attracted by the characteristic odor of the fungus. After crawling over the fungus mats and becoming contaminated with spores of the fungus, the insects move on to other trees and wherever there is a wound in the tree the contaminated insect is capable of bringing the spores of oak wilt into contact with the sap wood of uninfected oaks, thereby starting new infections.

There seems to be some association between the long distance spread of oak wilt and the activities and travel of man since so many of the new disease finds have been along highways and other heavily traveled lanes.

Oak wilt is known to occur in Arkansas, Illinois, Indiana, Iowa, Kansas, Kentucky, Minnesota, Maryland, Michigan, Missouri, Nebraska, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and Wisconsin. Nurserymen, foresters and all others interested in preventing the loss of oaks should be on the alert for this trouble. Samples of twigs from oaks showing symptoms of the disease should be sent to the Southeastern Forest Experiment Station, Federal Building, Ashville, North Carolina.

Six twigs or branches about six to eight inches long and one-half to one inch in diameter are best for laboratory examination. The twigs should be alive or just recently dead but not completely dry. Do not send leaves, dead branches or decayed wood. The twigs should be tied in a bundle, wrapped in paper so as to prevent excessive drying but should not be wrapped in wet moss or cotton. Labels should be attached in such a manner as to couple the laboratory report with the tree from which the twigs were taken.

Kentucky is fortunate in having a well organized Department of Forestry under the capable supervision of experienced men. Mr. Gene L. Butcher, State Forester, and Mr. Harry Nadler, in charge of Forestry Management, are well aware of the potential dangers of oak wilt disease and have set up a well coordinated program of survey and control. They do not consider oak wilt a disaster problem but one which is potentially serious and will require long range planning.

The area of heaviest oak wilt disease infection in Kentucky is located in Breathitt and Perry Counties. Since the first oak wilt diseased tree was found in Greenup County in 1950, the entire state has been surveyed. The disease seems to be fairly widespread in the eastern parts of the state but comparatively rare in Western Kentucky. Much work is yet to be done before officials can predict the future of oak wilt disease.

ELM PHLOEM NECROSIS AND DUTCH ELM DISEASE

Elm phloem necrosis has occurred in several localities in Kentucky over a period of ten years or more. Dutch elm disease is of much more recent occurrence having been found in only a few localities within the Commonwealth within the past five or six years. Although no cure is known for these maladies, measures can be taken to protect healthy trees from infection.

Dutch elm disease or phloem necrosis should be suspected whenever elm foliage suddenly wilts and the dry, dead leaves adhere to the branches or when the leaves of an entire branch or the top turn yellow and fall prematurely. To further identify the diseases, cut through the bark at ground level, or below, and pry the bark from the wood so the inner bark will show. If the inner bark surface is yellow or like butterscotch in color, phloem necrosis is indicated. If a portion of the inner bark is confined in a bottle or the closed hands for a few minutes, a faint odor of wintergreen can be detected from phloem-necrosis-diseased bark.

To test for Dutch elm disease remove several small branches having wilted, yellow or dying leaves. If the cross sections where cuts are made show several brown spots or discolorations in one or more annual rings of wood, the trouble is probably Dutch elm disease.

Both diseases are spread by insects. Elm phloem necrosis is spread by a leafhopper (Scaphoidens luteolus). Dutch elm disease is spread by elm bark beetle, principally the smaller European elm bark beetle (Scolytus multistriatus).

Prevention of spread of these diseases to healthy trees is based upon the control of insect carriers. This can be accomplished by sprays containing DDT, provided they are correctly formulated, properly applied and used at the right time. To control the carrier of elm phloem necrosis, it is necessary to spray thoroughly all leaf surfaces. The first spray should be applied when elm leaves are full grown, usually May 15 to June 1 in Kentucky. The second sprays should be applied when the second new growth appears, usually one to two months later. Use formula A or B as given below for both sprays and dilute to make 200 gallons.

To control the insect which carries Dutch elm disease, it is necessary to spray thoroughly all bark surfaces of the trees to be protected. Apply the first spray before the appearance of elm flowers or leaves. This period is usually the latter part of March for Kentucky. A second spray should be applied from two and one-half to three months after the first treatment. For first treatment use formula A or B diluted to make 100 gallons. If a mist blower is employed, use formula C diluted to make 20 gallons. For second treatment use either formula at one-half strength recommended for first treatment.

Formula A - Dissolve 16 pounds of technical DDT in a mixture of 2½ gallons of Benzene and 1 gallon of Velsicol AR - 50. To this solution add 1 pint of Triton X - 100.

Formula B - Dissolve 16 pounds of technical DDT in 4 gallons of Xylene. To this add 1 pint of Triton X - 100.

Formula C - Dissolve 20 pounds of the technical DDT in a mixture of 5 gallons of Xylene and 2½ gallons of Acme white oil. To this solution add 1½ pints of Triton X - 100.

If red spiders or spider mites build up to damaging populations which will sometimes be the case after repeated treatments with DDT, add one-half gallon of Acme white oil to each 100 gallons of formula A or B for foliage treatment.

EUROPEAN CHAFER
(Amphimallon majalis Razoum)

The European chafer situation has changed very little within the past year. This is another of the recently introduced plant pests of special concern to nurserymen because of its development within the soil. The grubs while feeding on the roots of plants could be so easily transported in B & B nursery stock.

Attention was called to some rather severe turf injury in sections of Newark, New York, in the spring of 1940. It was not until the spring of 1942 that positive identification was made of the species and this constitutes the first authentic record of the occurrence of the species in North America. The European Chafer is known to occur in several countries on the continent of Europe and is reported to be especially destructive in some areas.

Since 1942 scouting and survey work has been carried on by New York and surrounding state agencies and by the Pest Control Branch, Agricultural Research Service, to determine the extent of the infested area. To date one infestation has been found in New Haven County, Connecticut, at the town of Meriden. A small infested area was recently discovered in the town of Capon Bridge, Hampshire County, West Virginia. Infestations are known to exist in the counties of Chemung, Erie, Monroe, Niagara, Onondaga, Ontario, Seneca and Wayne, New York.

Soil treatments using three to five pounds of dieldrin or other equivalent insecticides per acre have been applied to most chafer infested areas in New York state as well as those infested spots in Connecticut and West Virginia.

The major difficulty in attempts to eradicate European chafer infestations is an adequate method of discovering newly infested spots before heavy populations are built up by the insect.

WHITE-FRINGED BEETLE
(Graphognathus spp.)

Little change has been reported in the overall infested area within the United States within the past year. Some minor extensions of infested areas have been reported in some states and some extensions of quarantine regulated areas have been added. The job settles down now to a matter of money and work and the question as to whether it is practical to attempt an all out eradication program.

Survey type inspections were continued in Kentucky during 1958 with negative results. The white-fringed beetle infested spot discovered near Paris, Tennessee, has apparently been successfully eradicated and we feel much relieved.

The practice of using fertilizer-insecticide mixtures drilled under row crops in infested areas is increasing in general use. This practice is helping to reduce insect populations and thereby lessen the danger of artificial spread.

White-fringed beetle is another of soil-infesting plant pests of special concern to nurserymen because of the ease of transporting the insects within the balls of B & B stock. Although the insect is not especially destructive to most nursery crops, the restrictions which would be emposed on nursery properties in infested areas would cause white-fringed beetle to become an expensive pest to any nurseryman in Kentucky.

JAPANESE BEETLE
(Popillia japonica Newman)

The Japanese beetle situation is undergoing a general re-appraisal by plant pest control officials in the U.S.D.A. as well as those of us in the eastern half of the country. For the 1959-1960 fiscal year we shall likely carry on with the same general program of quarantine, survey and suppression as in the past several years with some added

emphasis on survey. At a recent meeting of Federal and State workers it was agreed that added effort would be required in several states if we are to hold down the spread of Japanese beetles into and within the important farming states of the Middle West.

The control efforts within Kentucky have continued to show favorable results. Only small spot infestations needed treatment in Jefferson County and the Kenton-Campbell County areas during the 1958 season. The Pike County infested area, discovered late in 1957, was surveyed more fully in 1958 and found to be of considerable size. By use of an emergency appropriation from the Governor, approximately 1,400 acres were treated with 10 percent granular dieldrin during early September 1958. This treatment covered all the heavy and generally infested areas in Pike County as well as all the lightly infested areas along roads and highways.

The survey work planned for 1959 is on a somewhat larger and more comprehensive scale than during recent years. This is to check the effectiveness of past suppressive efforts as well as to discover any newly infested spots.

THE VEGETABLE WEEVIL
(Listroderes costirostris obliguus Klug)

Specimens of vegetable weevil were received from Simpson County June 2, 1958, where they were reported doing damage to newly transplanted tobacco. This was the second record of vegetable weevil in Kentucky. The first was from Cumberland County in April 1955, feeding on tobacco plants in the bed. The use of DDT was apparently successful in eliminating the Cumberland County infestations as well as the Simpson County infestation since none have been found in these areas since the original findings.

The adult female weevil is a typical curculio or snout beetle of medium size. It is short, 9 mm. long and 4 mm. wide. The color is a dull, grayish brown and each wing cover has a pale gray mark. No males of the vegetable weevil are known to occur in the country.

The eggs of the vegetable weevil are usually deposited singly on the base of plants or in the soil about the plants. The eggs are deposited during late summer and fall after high summer temperatures begin to drop. The eggs hatch in 13 to 18 days into creamy white larvae, which when full grown move down into the soil where pupation takes place. The life cycle normally takes slightly over one full year while some adult beetles have been observed to live as long as 23 months.

The vegetable weevil is most active during cool weather, and during the hot weather of July and August the adults seek shelter from the heat and remain inactive for several weeks. During cool days of spring and fall the beetles do their most damage.

DDT used at the rate of four pounds of 50 percent wettable powder per 100 gallons of water has given excellent kill of both larvae and adults.

SOYBEAN CYST NEMATODE
(Heterodera glycines Ichinohe)

Of special concern to nurserymen, as well as farmers generally, is the finding of the soybean cyst nematode in Fulton County, Kentucky, during May 1957. The plant pest was found in North Carolina during the fall of 1954 and this constituted the first record of the nematode in the United States. Since 1954 it has been found in six counties in Northwestern Tennessee, three (river) counties in Missouri, two counties in Arkansas, one county in Mississippi and one county in Kentucky.

Intrastate and interstate quarantines have been established and are now in force in all states where soybean cyst nematodes have been found to occur. Farm products such as grain, cotton, tobacco, hay, fruits and vegetables can be moved from regulated areas only under permits. Soil and plant material from which all soil cannot be removed are not permitted movement outside the regulated area.

Survey crews of both state and U.S.D.A. men are checking a wide area of the soybean producing midwestern and southern states in an effort to determine the extent and location of every soybean cyst nematode-infested farm.

Nurserymen will be concerned with soybean cyst nematode because of the quarantine restrictions which are proposed to help prevent the spread of the pest. The use of soybeans as a soil building crop in nursery management will open nursery grounds to the danger of infestation. Although the soybean cyst nematode is known to damage only soybeans, a few varieties of garden beans and the annual lespedezas, it can live for several years in soil where none of these crops are grown. Once the nematode gets into nursery soils it could cause nurserymen considerable losses because they would be unable to dig and sell balled nursery stock from infected blocks for several years.

At this time there is no chemical treatment practical for ridding soils of the soybean cyst nematode.

WITCHWEED
(Striga asiatica)

The parasitic plant known as witchweed was first identified as occurring in the Western World when it was found to be doing damage to corn in North and South Carolina. The genus Striga has been known and written about in Africa, Asia and Australia since 1790. The presently known areas in the United States infested with witchweed include portions of eight counties in North Carolina and five counties in South Carolina at or near the eastern coast where the two states join.

The Agricultural Research Service was notified of the identity of the plant as witchweed on September 21, 1956. Since that date survey work has been conducted in several states and much interest has been shown concerning the problem.

The witchweed plant is inconspicuous and would likely attract little attention; however, some women in the Carolinas were attempting to grow the plant in their flower gardens. The plant normally grows 8 to 10 inches high and has narrow bright green leaves which are quite hairy and appear the same on upper and lower surfaces. The flowers are small and usually brick red or sometimes yellowish-red and appear successively up the stem at the axil of the leaf. The seeds are microscopic in size, are dark and are produced in pods from mid summer until frost. The seeds may be dormant 15 to 20 years and seem to germinate only when stimulated by the secretions from the roots of the host plant. When the witchweed seedlings start to grow, its roots must contact, attach to and penetrate the roots of the host plant, otherwise it dies.

The witchweed attacks corn, sugarcane, sorghum, small grains and many grasses including crabgrass. Nurserymen should become concerned with the witchweed parasite because of the possibility of importing the seeds of the plant in soil about the roots of B & B nursery stock grown in nurseries where crabgrass has grown.

Quarantine restrictions have been placed on all properties where witchweed has been found. Both state and Federal quarantines are now in force in North and South Carolina. Among the more stringently regulated articles are all those which might carry soil in any form.

THE IMPORTED FIRE ANT
(Solenopsis saevissima richteri Forel)

The imported fire ant is believed to have reached this country as a stowaway on a boat from South America about 1918. Because of its close resemblance to some of our native ant species it was not identified as a separate species until 1930. It was first found around the bay front of Mobile, Alabama.

The imported fire ant closely resembles the darker forms of our native fire ants. The adult workers vary in color from dark brown to reddish-brown or black with an orange colored band at the base of the abdomen. The size varies from one-eighth to one-fourth inch long. Only the queens and males have wings.

The natural spread is by newly fertilized queens each of which finds a nesting place, sheds her wings and starts digging a brood chamber and building a new mound. She continues laying eggs, 10 to 15 the first days and more later, until the colony is well established. The eggs hatch in 8 to 12 days into dirty-white grubs which change to pupae in 6 to 12 days. The pupae are pale, shiny white and about the shape and size of adult workers. In another 9 to 12 days the adult workers emerge from the pupae cases. The workers care for the young brood, forage for food, maintain and enlarge the mound and protect the nest from enemies.

The fully developed mound averages about one foot high and two feet across. The honeycombed galleries are built within the cone and reach a depth of about three feet. There are an average of 25,000 ants in a well developed mound. More than 100 mounds per acre of land are not uncommon in heavily infested areas.

Imported fire ants damage many crops by sucking the juices from their roots, stems, seeds and tender shoots. Some of our most important farm crops and nursery crops are among those damaged by fire ants. The ants also attack the young of animals and birds, both wild and domestic. Ground nesting and low nesting birds, rabbits and the young of other small wild animals fall victim to the foraging fire ant workers. Newly born pigs, lambs and calves have been reported as killed by fire ants on many farms in heavily infested areas. The fire ants will also invade houses in search of food. Their favorite foods from the pantry include meats, butter, cheese, nuts and bread. They show little interest in household sweets.

The painfulness of the fire ant sting is out of all proportion to the ant's size. The sting of a single ant is usually not serious although it may cause an open sore followed by a scar. Persons who are sensitive to the venom of bees, ants, wasps, etc. if stung by several fire ants may suffer chest pains, nausea and even lapse into a coma. Imported fire ants are vicious when disturbed. They have been known to rout field workers in heavily infested areas. Children who disturb the mounds of fire ants may be severely stung since the fighting instinct of the ants make them a serious enemy to man and animals.

The imported fire ant now infests the states of Alabama, Mississippi, Georgia and Louisiana rather generally. The states of Texas, Arkansas, Florida, North Carolina and South Carolina are infested to a lesser extent. Shelby County, Tennessee, had an imported fire ant infestation discovered in 1950. The State of Tennessee applied insecticide to the infested area forthwith and the infestation was apparently eradicated. A recent report has been received by the State Entomologist that an imported fire ant infestation has been recently identified in Missouri, that portion of the state adjoining both Arkansas and Tennessee. More than 20 million acres are not infested in the United States.

The most effective control measures for eliminating imported fire ant mounds seems to be dieldrin, heptachlor, chlordane and aldrin. Two teacups full of 5 percent dieldrin granular spread uniformly over the mound and a 20 foot area around the mound will successfully eliminate the ants. Large scale treatments by use of airplanes and other power driven equipment have proven successful in heavily infested areas. The job of eradicating fire ants from an area is quite similar to our work of treating an area for the eradication of Japanese beetle.

Nurserymen and others should be on the alert for imported fire ant in Kentucky. The importation of plants with soil about the roots is one of the easiest ways of importing the fire ant.

INSPECTION REQUIREMENTS FOR CERTAIN CLASSES OF PLANT MATERIAL

Gladiolus Corms

Two inspections are required for certification of gladiolus corms. The first inspection is made during the blooming and the second inspection during storage after the corms have been cleaned.

Sweetpotato Plants

Some state laws establish the requirements that sweetpotato plants should be free from black rot, stem rot and sweetpotato weevil before they are shipped into the respective states. Only sweet potatoes which are certified as free from sweetpotato weevil should be bedded. A request for inspection service should be sent to the State Entomologist in advance of bedding time giving approximate date of bedding and drawing of first plants.

Native or Collected Plants

There seems to be a growing demand for certain native or collected plants. Where it is desired to offer for sale this type of plant material, the plants should be collected and "lined out" or "heeled in" and held for inspection. Notice should be forwarded to the State Entomologist giving the date when the plants will be ready for inspection and the location of the plant yard.

For general inspection requirements see "Summary of Requirements of Kentucky Nursery Inspection Law" and "Nursery Stock" defined on previous pages.

Voluntary Certification

Plant certification requirements are not uniform throughout the forty-eight states. Some states require the inspection of greenhouse plants, bulbs, corms, rhizomes, tubers, annual flowering plants and garden vegetable plants. Kentucky does not require inspection on any of these plants or materials. Dealers can merchandise this material, under the provisions of the Kentucky law, without applying or obtaining a state permit. A grower of any of the above mentioned plants who wishes to ship to other states or who wishes to have inspection and certification for any other reason can have inspection in the usual manner by applying to the State Entomologist. As in the case of required inspection a fee of $5 is charged for voluntary inspection.

Raspberry Plants

Two inspections are required for certification of raspberry plants. These inspections are made during summer months and must be at least thirty days apart. Raspberry plant growers wishing inspection services should notify the State Entomologist by June 1.

Strawberry Plants

Growers wishing to offer strawberry plants for sale should take into account the dual inspection requirements. Notice should be given to the State Entomologist by the middle of April if inspection services are desired. Also those growers who wish to grow plants under the strawberry virus disease control program should consult the Kentucky Seed Improvement Association and secure a copy of the requirements for growing plants under that program. Those growers who fulfill the requirements of the Kentucky Seed Improvement Association will obtain certification as to freedom from virus diseases and the strawberry root-knot nematode. In

addition to the plant certification issued by the Kentucky Seed Improvement Association, it is necessary for strawberry plant growers to continue to secure a certificate of inspection from the State Entomologist which is based on the dual inspection looking toward freedom from the general insects and plant diseases to which strawberry plants are subject. These two inspection and certification programs are separate and independent of each other. The certificate of inspection issued by the State Entomologist is required under sections 249.070 and 249.080 KRS for any strawberry plant grower in Kentucky who offers plants for sale within the Commonwealth or who offers strawberry plants for shipment to another state by any common carrier.

The strawberry plant certification program, under the supervision of the Kentucky Seed Improvement Association, is a voluntary program designed to help control virus diseases and root-knot nematodes in strawberry plants. It is also designed to help keep varieties of strawberries true to name.

NURSERY DEALERS

NAME		ADDRESS
Acra's Market		Covington
Albers Super Market		Covington
Albers Super Market		Erlanger
Albers Super Market		Ft. Thomas
Albers Super Market		Latonia
Albers Super Market		Lexington
Albers Super Market (3 permits)		Louisville
Albers Super Market (2 permits)		Newport
Alexander, C. R.	1914 Monmouth	Newport
Alexander Landscape Service	209 Rose Street	Campbellsville
Allen Florist & Gift Shop		Barlow
Allen, Kelly		Benton
Ashburn, Leo	Route 3	Smithville, Tenn.
Atlantic & Pacific Tea Company		Ashland
Atlantic & Pacific Tea Company		Barbourville
Atlantic & Pacific Tea Company		Bardstown
Atlantic & Pacific Tea Company		Bowling Green
Atlantic & Pacific Tea Company		Campbellsville
Atlantic & Pacific Tea Company		Central City
Atlantic & Pacific Tea Company		Corbin
Atlantic & Pacific Tea Company		Cumberland
Atlantic & Pacific Tea Company		Cynthiana
Atlantic & Pacific Tea Company		Danville
Atlantic & Pacific Tea Company		Elizabethtown
Atlantic & Pacific Tea Company		Frankfort
Atlantic & Pacific Tea Company		Fulton
Atlantic & Pacific Tea Company		Georgetown
Atlantic & Pacific Tea Company		Glasgow
Atlantic & Pacific Tea Company		Harlan
Atlantic & Pacific Tea Company		Harrodsburg
Atlantic & Pacific Tea Company		Hazard
Atlantic & Pacific Tea Company		Henderson
Atlantic & Pacific Tea Company		Hopkinsville
Atlantic & Pacific Tea Company		Jackson
Atlantic & Pacific Tea Company		Lancaster
Atlantic & Pacific Tea Company		Lawrenceburg
Atlantic & Pacific Tea Company		Lebanon
Atlantic & Pacific Tea Company (2 permits)		Lexington
Atlantic & Pacific Tea Company (17 permits)		Louisville
Atlantic & Pacific Tea Company		Madisonville
Atlantic & Pacific Tea Company		Mayfield
Atlantic & Pacific Tea Company		Middlesboro
Atlantic & Pacific Tea Company		Murray
Atlantic & Pacific Tea Company		Neon
Atlantic & Pacific Tea Company		Owensboro
Atlantic & Pacific Tea Company		Paducah
Atlantic & Pacific Tea Company		Paris
Atlantic & Pacific Tea Company		Pikeville
Atlantic & Pacific Tea Company		Pineville
Atlantic & Pacific Tea Company		Princeton
Atlantic & Pacific Tea Company		Richmond

NAME		ADDRESS
Atlantic & Pacific Tea Company		St. Matthews
Atlantic & Pacific Tea Company		Shelbyville
Atlantic & Pacific Tea Company		Shively
Atlantic & Pacific Tea Company		Somerset
Atlantic & Pacific Tea Company		Stanford
Atlantic & Pacific Tea Company		Valley Station
Atlantic & Pacific Tea Company		Versailles
Atlantic & Pacific Tea Company		Whitesburg
Atlantic & Pacific Tea Company		Winchester
Baldridges Store (5 & 10)		Fulton
Beaman, E. H.		Somerset
Bentley's 5-10 Store		Scottsville
Brown, Clyde H.	6592 Dixie Highway	Pleasure Ridge Park
Buchanan, J. N.	1528 Winchester Ave.	Ashland
Bunton Seed Company	300 E. Jefferson	Louisville
Butts, A. C. & Sons		Fulton
Campbell, J. Paris	Route 2	Leitchfield
Capito, Joe	309 Macon Avenue	Louisville
Cloverleaf Garden Center	2205 Gardiner Lane	Louisville
Colonial Stores, Inc.	Versailles Road	Lexington
Cooley, Charles O.	606 Washburn Ave.	Lyndon
Davey, The, Tree Expert Co.		Crestwood
Deemer Floral Company		Bowling Green
Dezold, Joseph A.	117 E. Eighth St.	Newport
Dixie Garden Nursery	Paris Road	Lexington
Dixie Gift Shop	987 N.W. Dixie Blvd.	Radcliff
Driskell's Nursery	Route 1	Lawrenceburg
Durrett, Earl	Route 3, Box 158	Greensburg
Early, Tom	733 N. 31st St.	Louisville
Economy Stores Company		Springfield
Elkhorn Nursery	Bryan Station Rd.	Lexington
Follis Hardware Company		Cave City
Ben Franklin Store		Bardwell
Ben Franklin Store		Clinton
Ben Franklin Store		Fulton
Ben Franklin Store		Hickman
Ben Franklin Store		Prestonsburg
Gallaher, George	Jefferson Street	Louisville
Garden Shop, The	3623 Lexington Rd.	Louisville
Garden Supply Club		Harrodsburg
Gateway Super Market	Shelbyville Road	Louisville
Gault, Glenn	Route 3	Lexington
Gene's Market		Marion
Goodwin, Nelson	3820 Newburg Road	Louisville
Grant, W. T., Company	5707 Preston Hgwy.	Louisville
Grant, W. T., Company	539 S. Fourth St.	Louisville
Grant, W. T., Company	23 Shelbyville Rd.	St. Matthews
Gray Drug Stores	838 Monmouth St.	Newport
Green, H. L.	544 S. Fourth St.	Louisville
Green Thumb, Inc.	14th & Mosley St.	Owensboro
Grimes, Joe S.	309 Honeysuckle	Stanford
Gunter, William		Shelbyville
Haas, Linus L.	5412 Rolling Ridge	Louisville
Hager May Market		Prestonsburg

NAME		ADDRESS
Hardinsburg I.G.A.		Hardinsburg
Haupt, Fred L.	221 W. Jefferson	Louisville
Haverly, Letcher N.	5140 Keavy Drive	Covington
Henderson Farmers Supply Co.	520 S. Main St.	Henderson
Hobbs, R. H., Company		Campbellsville
Hobbs, R. H., Company		Lebanon
Hobbs, R. H., Company		Paintsville
Hobbs, R. H., Company		Pikeville
Hobbs, R. H., Company		Prestonsburg
Hobbs, R. H., Company		Whitesburg
Holley, Earl		Mitchellsburg
Holliday Garden Service	8602 Staghorn Dr.	Louisville
Jackson Florist	3124 Madison Ave.	Covington
Jerusan Nursery		Monticello
Jones, Irby S.	Route 2, Box 463	Fern Creek
Karcher, Theodore B.	3125 Poplar Level	Louisville
Kay Jewelry Store	Preston Highway	Louisville
Kay Jewelry Store	620 S. Fourth St.	Louisville
Kermits Super Market		Whitesburg
Kresge, S. S., Company		Covington
Kresge, S. S., Company		Lexington
Kresge, S. S., Company		Louisville
Kresge, S. S., Company		Newport
Kresge, S. S., Company		Owensboro
Kresge, S. S., Company		Paducah
Kresge, S. S., Company		Pleasure Ridge Park
Kress, S. H., Company		Ashland
Kress, S. H., Company		Winchester
Kroger Company		Ashland
Kroger Company		Bardstown
Kroger Company		Benton
Kroger Company		Bowling Green
Kroger Company		Campbellsville
Kroger Company		Carrollton
Kroger Company		Catlettsburg
Kroger Company		Columbia
Kroger Company (2 permits)		Covington
Kroger Company		Cynthiana
Kroger Company		Danville
Kroger Company		Dayton
Kroger Company		Elizabethtown
Kroger Company		Elsmere
Kroger Company		Frankfort
Kroger Company		Franklin
Kroger Company		Ft. Thomas
Kroger Company		Georgetown
Kroger Company		Harlan
Kroger Company		Harrodsburg
Kroger Company		Henderson
Kroger Company		Hopkinsville
Kroger Company		Irvine
Kroger Company		Lebanon
Kroger Company (5 permits)		Lexington
Kroger Company		London

NAME	ADDRESS	
Kroger Company (20 permits)		Louisville
Kroger Company		Ludlow
Kroger Company		Madisonville
Kroger Company		Mayfield
Kroger Company		Maysville
Kroger Company		Middlesboro
Kroger Company		Morganfield
Kroger Company		Mt. Sterling
Kroger Company		Murray
Kroger Company		Newport
Kroger Company (2 permits)		Nicholasville
Kroger Company		Owensboro
Kroger Company		Owenton
Kroger Company		Paducah
Kroger Company (2 permits)		Paintsville
Kroger Company		Paris
Kroger Company		Pikeville
Kroger Company		Pineville
Kroger Company		Prestonsburg
Kroger Company		Radcliffe
Kroger Company		Richmond
Kroger Company		Russellville
Kroger Company		Shelbyville
Kroger Company		Somerset
Kroger Company		Stanford
Kroger Company		Sturgis
Kroger Company		Valley Station
Kroger Company		Versailles
Kroger Company		Williamstown
Kroger Company		Winchester
Krotzki's Flower Center	3300 Preston Hgwy.	Louisville
Kuhn's		Lawrenceburg
Langley's Super Market		Clarkson
Latiff Food Market		Middlesboro
Latonia Garden Store	3508 Decoursey	Latonia
Lawn & Garden Center		Madisonville
Little Gem Market		Cumberland
Lose Brothers, Inc.	206 E. Jefferson	Louisville
Luking, Henry J.	3000 Bardstown Rd.	Louisville
Lycan, Zinas, Jr.	Route 1	Ft. Gay, W. Va.
McClanahan, Louis Martin	209 Mulbery	Georgetown
McKnight, Ben S.	515 E. Lytle St.	Murfreesboro, Tenn.
Maupin, S. B.	Rockford Plaza	Louisville
Meisner, Allen L.	4058 Richland Ave.	Louisville
Miles, H. C.	P. O. Box 186	Pewee Valley
Montgomery Ward & Company	721 Madison Ave.	Covington
Montgomery Ward & Company	302 W. Main St.	Lexington
Montgomery Ward & Company	24 E. Second St.	Maysville
Murphy, G. C., Company	1537 Winchester	Ashland
Murphy, G. C., Company	29 W. Second St.	Maysville
Murphy, G. C., Company	507 Court St.	Paintsville
Murphy, G. C., Company	23½-24½ Main St.	Pikeville
Murphy, G. C., Company		Pleasure Ridge Park
Myers & Clark Company, Inc.		Ashland

Plant Pest Control Law Administration, 1958-59

NAME		ADDRESS
Newberry, J. J., Company		Bardstown
Newberry, J. J., Company		Central City
Newberry, J. J., Company		Corbin
Newberry, J. J., Company		Cynthiana
Newberry, J. J., Company		Danville
Newberry, J. J., Company		Elizabethtown
Newberry, J. J., Company		Frankfort
Newberry, J. J., Company		Glasgow
Newberry, J. J., Company		Harlan
Newberry, J. J., Company		Harrodsburg
Newberry, J. J., Company		Hazard
Newberry, J. J., Company		Henderson
Newberry, J. J., Company		Lawrenceburg
Newberry, J. J., Company		Lebanon
Newberry, J. J., Company		Mayfield
Newberry, J. J., Company		Mt. Sterling
Newberry, J. J., Company		Owensboro
Newberry, J. J., Company		Paducah
Newberry, J. J., Company		Pineville
Newberry, J. J., Company		Richmond
Newberry, J. J., Company		Shelbyville
Newberry, J. J., Company		Somerset
Newberry, J. J., Company		Winchester
Nunn, James L.		Sullivan
O'Dell's Garden Center	Route 1	Hodgenville
Pack, Buford	Box 225	Shelby City
Parsons, Curtis		Evarts
Peluse, James	623 Monmouth St.	Newport
Peoples Hardware		Williamsburg
Pine Hill Hursery	Route 3	Frankfort
Plumer, Donald		Parksville
Procter, E. L.	East Broadway	Richmond
Purcell Company	320 West Main	Lexington
Putnam's Greenhouse	313 N. Main St.	Greenville
Rankin, J. R.		Lyndon
Ray's I.G.A. Food Liner		Owensboro
Reed, William M.	315 Linden Walk	Lexington
Rock Castle Nursery	Route 5	Louisa
Rogers, Hubert L.	Route 2	Grayson
Rush & Atkinson's Food Basket		Tompkinsville
Salyersville Market		Salyersville
Samuels Food Market		Clinton
Scott Store		Bowling Green
Scott Store	Main & Eversole	Harlan
Scott Store	138 Main Street	Hazard
Scott Store	2010-12 Cumberland	Middlesboro
Sears, Roebuck and Company		Ashland
Sears, Roebuck and Company		Bowling Green
Sears, Roebuck and Company		Covington
Sears, Roebuck and Company		Lexington
Sears, Roebuck and Company		Louisville
Sears, Roebuck and Company		Owensboro
Sistrunk, W. T., & Company, Inc.		Lexington
Shady Lane Gardens	Old Frankfort Pike	Frankfort

NAME		ADDRESS
Shaker Heights Trading Center	Dixie Highway	Louisville
Snyder, Ben, Inc.	522 W. Market St.	Louisville
Snyder, Ben, Inc.		Pleasure Ridge Park
Southern States		Madisonville
Southland Nursery	494 Southland Dr.	Lexington
Springfield Flower Shop		Springfield
Stanley, S. S.	Route 1	Greenville
Stephens, C. H., Co., Inc.		Russell
Stoke, Louis, Jr.	2340 Payne St.	Louisville
Strassburger's 5-10¢ Store		Scottsville
Sturgis Imp. & Hardware Co.		Sturgis
Teague, Roscoe H.	Route 1	Corbin
Todd's Grocery	Box 152	Dixon
Tresslar's 5 & 10¢ Store (2 permits)		Owensboro
Troxwell, Henry	Box 378A, Route 3	Anchorage
Trumbo, Lawrence	110 Dayton Pike	Dayton
Tyler's Tree Service	Route 2	Danville
U-Tote-Em Super Market		Fulton
Vandergrift, John	914 Eighth St.	Carrollton
Van's Five & Ten Store	605 Washington St.	Shelbyville
Wakins Brothers, Inc.		Middlesboro
Walgreen Drug Stores	140 W. Main St.	Lexington
Walgreen Drug Stores (7 permits)		Louisville
Walgreen Drug Stores	1717 Monmouth St.	Newport
Walgreen Drug Stores	124 W. Main St.	Owensboro
Walgreen Drug Stores	432 Broadway	Paducah
Walgreen Drug Stores	5700 Dixie Hgwy.	Pleasure Ridge Park
Webb, Stanley		Warsaw
Webb's Grocery		Bardwell
Wells, Martin	1214 Liggett St.	Lexington
Winn-Dixie Store		Fort Knox
Winn-Dixie Store		Frankfort
Winn-Dixie Store (3 permits)		Lexington
Winn-Dixie Store (17 permits)		Louisville
Winn-Dixie Store		Owensboro
Winn-Dixie Store		Shelbyville
Woolworth, F. W., Company		Ashland
Woolworth, F. W., Company		Bowling Green
Woolworth, F. W., Company		Covington
Woolworth, F. W., Company		Danville
Woolworth, F. W., Company		Frankfort
Woolworth, F. W., Company		Henderson
Woolworth, F. W., Company		Hopkinsville
Woolworth, F. W., Company (2 permits)		Lexington
Woolworth, F. W., Company (7 permits)		Louisville
Woolworth, F. W., Company		Madisonville
Woolworth, F. W., Company		Mayfield
Woolworth, F. W., Company		Middlesboro
Woolworth, F. W., Company		Newport
Woolworth, F. W., Company		Paducah
Woolworth, F. W., Company		Richmond
Woolworth, F. W., Company		St. Matthews
Yopp Seed Company		Paducah
Young, Raymond O.		South Shore

KENTUCKY NURSERYMEN WHO RECEIVED CERTIFICATES OF INSPECTION, 1958-59

NAME	ADDRESS	ACREAGE	KIND OF STOCK
Albert's Orchid Co.	4318 Westport Rd., Louisville		Greenhouse
Allen, Kelley	R. 6, Benton	1	Strawberry
Ammon Nursery	R. 1, Florence	6	General
Arrow Wood Nursery, C. E. O'Conner	Warsaw	35	General
Aterburn, Paul, Nurseries	Box 72, Louisville	5	General
Ball, A. E.	R. 1, Rush	2	Ornamental
Barry, Mary K.	Middletown	1	Ornamental
Baxter, L. M.	R. 1, Keavy	1	Ornamental
Baxter Nursery, O. W. Baxter	R. 1, Keavy	5	Ornamental
Bayne Iris Garden	Mt. Olivet	½	Iris
Bel-Bar Acres	R. 1, Anchorage	1	Perennials
Bellefonte Nursery	Ashland	10	General
Berea College	Berea	2	General
Blue Star Nursery	Millersburg	25	General
Bolton, Paul	1282 Fern Valley Rd., Louisville	2	Ornamental
Brinker, Mrs. Alice	15 Grand, Latonia	¼	Iris
Brown, Mrs. Robert S.	4500 Hillside Dr., Louisville	½	Iris
Cardinal Hill Nursery, H. K. Gayle	Glens Mill Pike, Frankfort	5	General
Cheatham, Mrs. Tracy H.	345 S. Fourth St., Danville	¼	Perennials
Cherokee Tree Expert Co.	Bardstown Road, Louisville	5	General
Cherry, The Florist	Paducah		Greenhouse
Chick's Nursery	Marion	3	General
Chowning, Kelly T.	716 Aurora, Lexington	5	General
Church, Archibald, III	R. 2, Maysville	3	Ornamental
Clay Nurseries & Greenhouses	Clay and Sturgis	35	General
Clifty Evergreen Gardens, H. D. Parsons	Cattletsburg	1	Ornamental
Coffey, Wallace	Frenchburg	2	Strawberry
Cole's Nursery	Henderson	10	General
Columbia Nursery	501 Greensburg St., Columbia	4	General
Crume, T. C., Nursery & Landscaping Company	Hgwy. 42, Florence	50	General
Curry, J. G.	Hawsville		Sweet Potatoes
Dixie View Nurseries	7905 Dixie Highway, Florence	25	General
Donaldson Nurseries	Sparta	5	General
Drake Gardens	4026 Spring Hill Rd., Louisville	¼	Iris
Dressman, J. A.	R. 5, Covington	½	Bulbs
Durrett, Lydian	Preston Highway, Louisville	3	Ornamental

NAME	ADDRESS	ACREAGE	KIND OF STOCK
Evergreens, Inc.	275 Hubbard Lane, Louisville	5	Ornamental
Fike Nurseries	Hopkinsville	60	General
Florence Nursery	Florence	4	General
Fortner, D. D.	Morgantown	½	Ornamental
Gardiner, Boone, Nurseries	R. 6, Louisville	25	General
Gardner Nursery	Eddyville	1	Ornamental
Gordon, Fred L., Nursery	5402 New Cut Road, Louisville	15	General
Gramse Nursery, The	Old Cairo Road, Paducah	3	General
Gramse, Roy	Old Cairo Road, Paducah	5	General
Haag Nurseries	Jeffersontown	10	General
Hallenburg Nursery	Anchorage	8	General
Harvel, A. M., Florist & Nursery	Princeton	8	General
Higdon Nursery	Mayfield	5	General
Highbaugh Farms	R. 6, Louisville	20	General
Hillenmeyer, Donald	1550 Meadowthorp, Lexington	1	General
Hillenmeyer Nurseries	Lexington	270	General
Hills Nursery	Warsaw	50	General
Hill & Pat Farms	1550 Meadowthorp, Lexington	5	General
Humphrey, Earl F.	Box 204, Pee Wee Valley	4	Ornamental
Humphrey's Landscape Serv.	Mt. Sterling	25	General
Jett's Nursery	Georgetown	1	General
Johnson, Allie	R. 6, Benton	5	General
John, Clyde E.	Ashland	10	General
Kerr, Mrs. S. D.	2300 Bradley Ave., Louisville	¼	Perennials
Klein, Theo., Nursery	Crestwood	45	General
Korfhage Florist & Nursery	4404 Dixie Highway, Louisville	12	General
Korfhage, H. A.	3340 Taylor Blvd., Louisville	5	General
Leichhardt Hillview Nursery	Bowling Green	25	General
Lillard's Nursery	R. 2, Jeffersontown	35	General
Lillard's Nursery	6129 Taylor Mill Rd., Covington	16	General
Martin's Nursery	Carrollton	35	General
McClain's Nursery	Taylorsville	2	Ornamental
Metcalf Floral Company	Hopkinsville	2	General
Metcalf Wholesale Florist	Box 229, Hopkinsville		Greenhouse
Minish & Potts	Crestwood	5	General
Mink's Nursery	London	4	Ornamental
Montieth Nursery	Hebron	1	Ornamental
Mt. Pleasant Gardens	1810 N. Ft.Thomas, Ft. Thomas	10	General
Nick's Nursery	Anchorage	35	General
Oak Grove Nursery	2121 Phelps Avenue, Ashland	2	General

NAME	ADDRESS	ACREAGE	KIND OF STOCK
Otte Gardens, Clarence Otte	306 Penruth Ave., Louisville	7	General
Outer Belt Nurseries, H. G. Hendrickson	7902 Shepherdsville, Louisville	3	General
Peyton's Nursery & Greenhouse	Hodgenville	5	General
Pfile, Earl E.	R. 1, Fern Creek	1	Ornamental
Pomona Nurseries	Bowling Green	5	General
Ray, Carl, Company	La Grange Road, Lyndon	18	General
Reid's Greenhouses	R. 1, Hickory	½	Ornamental
Reynolds Nursery	Bondville	30	General
Ritter, Mrs. W. M.	R. 4, Louisville	¼	Perennials
Rottgering's Nursery	Old Cairo Road, Paducah	5	General
Rouse, Sterling	Florence	1	Fruits
Sanders Brothers Nursery	R. 4, Paducah	10	General
Sanders, James, Nursery	4123 Schneidman Rd., Paducah	5	General
Sanders, Lawrence, Nursery	721 Kentucky Avenue, Paducah	4	General
Schevetto's Nursery	Anchorage	7	General
Schneidman's	Old Mayfield Road, Paducah	20	General
Shaw's Gardens	Henderson	5	Ornamental
Singer Gardens	Stamping Ground	20	General
Smits Greenhouses	Paris	2	Ornamental
Snow Hill Florist	Shelbyville	5	General
Sparta Nursery, J. M. Crume	Sparta	1	General
Straw, William	Carlisle	¼	Ornamental
Sunset Seranade Gardens, R. E. Hale	R. 1, Owensboro	¼	Iris
Veeley's Nursery	3804 Camp Ground Rd., Louisville	5	General
Walker, Kingsley, Company	1127 Standiford Ave., Louisville	3	Ornamental
Wallitsch Nurseries	2608 Hikes Lane, Louisville	10	General
Watkins, Leroy, Nursery	Owensboro	5	General
Wayside Nursery	Robards	2	Ornamental
Wheeler's Nursery	Owensboro	3	General
Wildwood Nursery	Ashland	1	Ornamental
Willadean Nurseries	Sparta	50	General

SUMMARY OF INSPECTION AND REGULATORY WORK, 1958-59

The increase in numbers of nurseries as well as the increase in acreage of nursery stock reflects the continued increase in demand for ornamental plants. The trend toward cash-and-carry sales of ornamental plants has resulted in a considerable increase in store counter sales as well as several newly built garden stores during recent years. A trend toward specialization in the growing of ornamental plants with the attendant increase in long distance transportation of plants has, and will likely continue, added to our responsibilities in plant pest prevention and control activities. Education, all along the lines, is the great need in this plant pest prevention and control problem. A brief, partial summary of the year's work follows:

Inspections of growing stock.	119
Inspections of fruit, stock only	1
Inspections of bulbs, perennials, etc.	12
Inspections of greenhouses	4
Acres of field grown stock	1,282.50
Acres of fruit stock only	0.25
Acres of bulbs, perennials, etc.	5.50
Kentucky grower's certificates issued	135
Nonresident nurserymen's licenses issued	337
Nursery stock dealer's permits issued	402
Nonresident nursery stock agent's permits issued. . .	49
Miles traveled during inspection - regulatory activities	16,243
Number of counties visited	120

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