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Connecticut Agricultural Experiment Station  
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EUROPEAN CORN BORER  
QUARANTINE AND CLEAN-UP  
REGULATIONS

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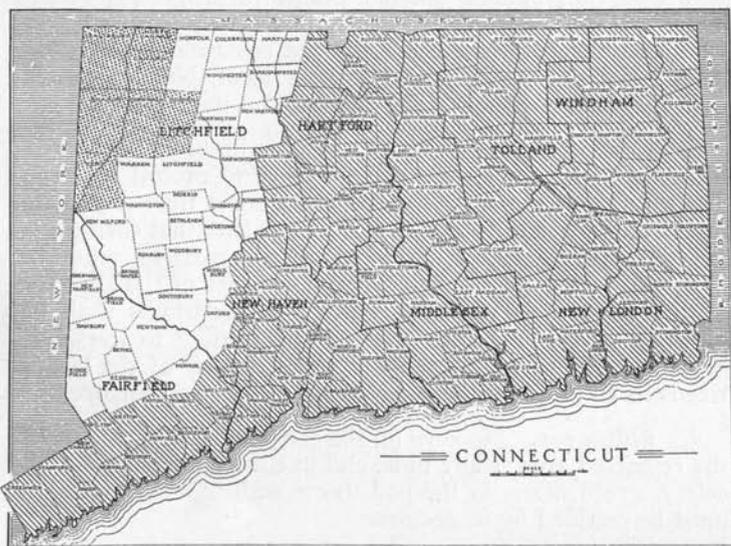


Figure 5. Map of Connecticut. Shaded portion at right is quarantined on account of the two-generation corn borer. Lighter shaded portion in northwestern corner of the State is quarantined because of the one-generation corn borer.

### THE GROWER AND THE QUARANTINE

1. **Extent of infestation.** The European corn borer has spread over almost three-fourths of Connecticut. The grower himself must practice strict control methods or profit from corn growing will become impossible.

2. **Restricted territory.** The revised State and Federal orders place under restriction for the two-generation borer all of Tolland, Windham, New London and Middlesex Counties; all of Hartford County, except the town of Hartland; all of New Haven County except the towns of Middlebury, Southbury, and Oxford, and the following towns in Fairfield County: Bridgeport, Darien, Easton, Fairfield, Greenwich, New Canaan, Norwalk, Shelton, Stamford, Stratford, Trumbull, Weston, Westport and Wilton. Seven towns in Litchfield County are quarantined for the one-generation borer. They are Canaan, Cornwall, Goshen, Kent, North Canaan, Salisbury and Sharon. (See the map on the cover.)

3. **Control by growers.** The man who practices control methods on his own farm can do more to protect his crop and to prevent the spread of the corn borer than any State or Federal quarantine agents. To make sure that corn fields are cleaned up, statute requires that cornstalks must be destroyed in the quarantined area. The order of the Director of the Experiment Station is that "all cornstalks shall be disposed of on or before *April 20* by feeding to livestock, burning or plowing under cleanly, and that all of the larger weeds in and around the corn fields be likewise destroyed."

4. **Shipment.** No corn on the ear may be shipped out of the restricted area at any time, and in the summer months all celery, green beans in the pod, beets with tops and rhubarb must be certified by inspectors.

### SPREAD OF THE BORER

Federal scouting operations for 1930 in Connecticut revealed that the European corn borer, *Pyrausta nubilalis* Hubn., had spread westward and 44 additional towns were found to be infested. Federal Quarantine No. 43 was therefore revised and became effective January 23, 1931. The State quarantine was also revised to conform to the Federal quarantine and became effective February 1, 1931. The State Quarantine Order No. 28, with supplemental rules and regulations, is given on other pages of this circular.

### SIGNS OF INFESTATION

One of the first signs of infestation noticed by the grower is that the tassels break and hang downward. When heavily infested, the entire stalks are so thoroughly tunneled that they are weakened and fall over. Late in the fall perhaps hardly a stalk is left standing. In such instances nearby celery, rhubarb, bean, beet, dahlia, aster, chrysanthemum, cosmos, zinnia, gladiolus, hollyhock and many of the larger weeds may become infested. Under such conditions, corn cannot be grown at a profit.

The borer is a dirty white caterpillar an inch or less in length marked with scattered black dots. It spends the winter in the stalks. The adult moth is light grayish brown with a wing spread of about an inch or slightly more.

### CULTURAL CONTROL METHODS

The following practices must be carried out by all growers if it is desired to hold the European corn borer in check. Otherwise, it may be impossible to grow corn at a profit after the State becomes thoroughly infested:

1. **Cut stalks early.** Cornstalks should be cut just as early as possible after maturity and put in the silo or fed out to cattle. When fed out, uneaten portions of stalks should be destroyed. If allowed to stand, such stalks furnish a favorable shelter for borers.

2. **Cut close.** If the stalk is cut close to the surface of the ground, very few borers will be contained in the stubble. If it is cut 6 to 12 inches high, the stubble may furnish enough borers to ruin the crop the following year, and such stubble should be plowed under cleanly, or pulled and burned.

3. **Burn uncut stalks.** Cornstalks that are not cut and used for silage or fodder should be burned in the field or cleanly plowed under. The larger weeds in the fields and around the margins should also be burned.

4. **Plow clean.** By clean plowing in the fall, a large percentage of the second-brood borers is killed in the winter. Fall plowing is somewhat less effective against the single-brooded borers, but against both one-generation and two-generation borers, early spring plowing (in April) is beneficial, especially if all debris is covered deeply. There are now plows and attachments to facilitate the clean plowing under of standing cornstalks, and the County Farm Bureau Agent can advise regarding them.

5. **Clean small corn patches.** Small patches of sweet corn in back yard gardens can perhaps be pulled and burned to best advantage. If not cleaned up, such places may produce enough borers to infest the entire countryside.

#### Clean-Up Order

On February 16, 1931, the following clean-up order, which requires that all cornstalks be destroyed by April 20, was issued according to statute:

Pursuant to the provisions of Section 2125, General Statutes of Connecticut, revision of 1930, I, William L. Slate, Director of the Connecticut Agricultural Experiment Station, do hereby issue orders, rules and regulations as follows: That in the area quarantined on account of the European corn borer, all cornstalks shall be disposed of on or before April 20, by feeding to live stock, burning or plowing under cleanly, and that all of the larger weeds in and around the corn fields be likewise destroyed.

Effective February 16, 1931.

WILLIAM L. SLATE,  
*Director.*

Inspectors will go through the quarantined area during the latter half of April to ascertain whether a proper disposition has been made of cornstalks. If not, the owners and managers must explain why the order has not been carried out.

#### QUARANTINE ORDER NO. 28 CONCERNING THE EUROPEAN CORN BORER

The fact has been determined that the European corn borer has been found to occur in Connecticut outside of the areas restricted by Quarantine Order No. 24, effective January 15, 1930, and it is necessary to extend the quarantine restrictions and regulations in conformity with Federal Quarantine No. 43, revised and effective January 23, 1931.

Pursuant to the provisions of Section 2124, General Statutes, a public hearing was held in New Haven on November 25, 1930. The order herein given extends the quarantine restrictions and regulations to additional towns in Tolland, Hartford, New Haven and Fairfield Counties on account of the

two-generation European corn borer, and to additional towns in Litchfield County on account of the one-generation European corn borer.

Now, therefore, I, William L. Slate, Director of the Connecticut Agricultural Experiment Station, under authority conferred by Section 2124, General Statutes, do hereby proclaim the following towns to be under quarantine:

#### Two-Generation Regulated Area

All towns in Tolland, Windham, New London and Middlesex Counties; all towns except Hartland in Hartford County; the towns of Ansonia, Beacon Falls, Bethany, Branford, Cheshire, Derby, East Haven, Guilford, Hamden, Madison, Meriden, Milford, Naugatuck, New Haven, North Branford, North Haven, Orange, Prospect, Seymour, Wallingford, Waterbury, West Haven, Wolcott and Woodbridge in New Haven County; the towns of Bridgeport, Darien, Easton, Fairfield, Greenwich, New Canaan, Norwalk, Shelton, Stamford, Stratford, Trumbull, Weston, Westport, and Wilton in Fairfield County.

#### One-Generation Regulated Area

The towns of Canaan, Cornwall, Goshen, Kent, North Canaan, Salisbury and Sharon in Litchfield County.

Hereafter, under the authority of said Section 2124, General Statutes, restricted articles and materials from the restricted areas shall be moved or allowed to be moved to other points within the State only in conformance with the conditions prescribed in the Rules and Regulations appended hereto and made a part of this Quarantine Order.

This Quarantine Order and appended regulations supersede all former orders and regulations concerning the European corn borer, and shall become effective on and after February 1, 1931.

WILLIAM L. SLATE,  
*Director.*

Approved:

WILBUR L. CROSS,  
*Governor.*

## REVISED RULES AND REGULATIONS SUPPLEMENTAL TO NOTICE OF QUARANTINE NO. 28

(Effective February 1, 1931)

### Regulation 1. Definitions

For the purpose of these regulations the following words, names, and terms shall be construed, respectively, to mean:

1. **Corn borer:** The insect known as the European corn borer (*Pyrausta nubilalis* Hubn.)
2. **Quarantined area:** Any town or part of town quarantined by the Director of the Connecticut Agricultural Experiment Station upon determination by him that the corn borer exists therein.
3. **Two-generation regulated area:** The entire area comprised of towns now or hereafter designated by the Director of the Connecticut Agricultural Experiment Station as regulated to prevent the spread of the two-generation strain of the European corn borer therefrom.
4. **One-generation regulated area:** The entire area comprised of towns now or hereafter designated by the Director of the Connecticut Agricultural Experiment Station as regulated to prevent the spread of the one-generation strain of the European corn borer therefrom.
5. **Inspector:** An inspector of the Connecticut Agricultural Experiment Station or the United States Department of Agriculture, when duly authorized to act in this capacity.

### Regulation 2. Limitation of Restrictions to Regulated Areas

The restrictions provided in these regulations on the intrastate movement of the plants and plant products enumerated in said notice of quarantine will be limited to such products originating in or moving from the areas in such towns or parts of towns now or hereafter designated by the Director of the Connecticut Agricultural Experiment Station, as regulated areas.

### Regulation 3. Control of Movement of Restricted Plants and Plant Products

#### Section A. Restrictions on Movement From One-Generation Regulated Area

1. No cornstalks, ears, or other parts or debris of corn or broomcorn plants or sorghums or Sudan grass shall be moved or allowed to be moved intrastate from the one-generation regulated area to or through any point outside thereof unless a certificate or a permit shall have been issued therefor, except as provided in paragraphs (2) and (3) hereof.
2. No corn on the cob or ears of corn originating within the one-generation regulated area shall be moved or allowed to be moved intrastate from such area to or through any point outside thereof, except that such ear corn may be moved without restriction from the one-generation to the

two-generation area, where such areas are contiguous. No corn on the cob originating outside the regulated areas and moved to the one-generation regulated area shall be moved or allowed to be moved intrastate from such area to or through any point outside thereof (except into the two-generation area where such areas are contiguous) unless a certificate or permit shall have been issued therefor.

3. No restrictions are placed on the intrastate movement from the one-generation regulated area to or through any point outside thereof, at any time of the year, of shelled corn, broomcorn seed, sorghum seed, Sudan grass seed, celery, beets, rhubarb, oat or rye straw as such or when used as packing, nor cut flowers or entire plants of chrysanthemum, aster, cosmos, zinnia, hollyhock, gladiolus, and dahlia.

#### Section B. Restrictions on Movement From Two-Generation Regulated Area

1. No cornstalks, ears, or other parts or debris of corn or broomcorn plants or sorghums or Sudan grass shall be moved or allowed to be moved intrastate from the two-generation regulated area to or through any point outside thereof, unless a certificate or a permit shall have been issued therefor, except as provided in paragraphs (2) and (3) hereof.
2. No corn on the cob or ears of corn originating within either the one-generation or the two-generation regulated area shall be moved or allowed to be moved intrastate from the two-generation area to or through any point outside thereof. No corn on the cob originating outside the regulated areas and moved to the two-generation regulated area shall be moved or allowed to be moved intrastate from such area to or through any point outside thereof unless a certificate or permit shall have been issued therefor: *Provided*, That no restrictions are placed on the movement of green corn on the cob from the two-generation area during the period from January 1 to June 14, inclusive, and no permit will be required for such movement during that period.
3. No cut flowers or entire plants of chrysanthemum, aster, dahlia, or gladiolus shall be moved or allowed to be moved intrastate from the two-generation regulated area to or through any point outside thereof unless a certificate or permit shall have been issued therefor by the Connecticut Agricultural Experiment Station or by the United States Department of Agriculture. No restrictions are, however, placed on the intrastate movement of bulbs and roots of dahlia and gladiolus without stems, and no certificate or permit will be required for such movement.
4. No lima beans in the pod, green shell beans<sup>1</sup> in the pod, beets with tops, or rhubarb, shall be moved or allowed to be moved intrastate from the two-generation regulated area to or through any point outside thereof during the period from June 1 to December 31, inclusive, unless a certificate or permit shall have been issued therefor by the Connecticut Agricultural Experiment Station or by the United States Department of Agriculture. No restrictions are placed on the intrastate movement of such articles during the period from January 1 to May 31, inclusive, and no certificate or permit will be required for such movement during that period.

<sup>1</sup> This term includes varieties variously known as cranberry or horticultural shell beans, but does not include dry beans, shelled lima or other beans, or string or wax beans.

5. No restrictions are placed on the intrastate movement from the two-generation regulated area to or through any point outside thereof, at any time of the year, of shelled corn, broomcorn seed, sorghum seed, Sudan grass, string or wax beans, oat or rye straw, celery, or the cut flowers or entire plants of cosmos, zinnia, or hollyhock.

#### Section C. General Provisions

1. No restrictions are placed on the intrastate movement of any of the articles enumerated when they shall have been manufactured, processed, or treated in such a manner that in the judgment of the inspector no infestation could be transmitted.
2. No restrictions are placed on the intrastate movement of any of the articles enumerated moved from an area not under regulation through a regulated area when such movement is on a through bill of lading.
3. No restrictions are placed on the intrastate movement of the articles enumerated between points within the same regulated area, provided such articles do not pass through any point outside the regulated area in which they originated.

#### Regulation 4. Conditions Governing the Issuance of Certificates and Permits

1. Applications: assembling articles for inspection. Persons intending to move or allow to be moved intrastate plants and plant products for which certificates or permits are required by these regulations shall make application therefor as far as possible in advance of the probable date of shipment. Applicants for inspection will be required to assemble the articles to be inspected and so place them that they can be readily examined. If not so placed, inspection may be refused. All charges for storage, cartage, and labor incident to inspection other than the services of inspectors shall be paid by the shipper.
2. Individual packages or car lots. Certificates of inspection authorizing the intrastate movement of individual packages or car lots of restricted articles may be issued under either of the following conditions: (1) When the articles to be so moved have actually been inspected and found free from infestation; (2) when the articles have been disinfected or treated under the supervision of an inspector in such a manner as to eliminate all risk of transmitting infestation.
3. Uninfested premises. Certificates of inspection good for a period of 30 days from the date of inspection, authorizing the intrastate movement of the articles enumerated, may be issued when the articles to be so moved have been grown on individual premises or in districts within a regulated area which have been determined by an inspector to be free from corn-borer infestation and to be maintained in such a condition of freedom from weeds and other extraneous vegetation as to prevent possibility of the appearance of the corn borer through such agencies.
4. Articles originating outside the regulated areas. Articles of which the intrastate movement is restricted by these regulations which originate outside the regulated areas may be shipped intrastate from points within the regulated areas to points outside such areas under certificate or permit. Certificates or permits will be issued only for plants and plant products which are not infested with the corn borer, and transportation companies shall not accept or move intrastate from within the regulated

areas such plants and plant products originating outside such areas unless each shipment is accompanied by a certificate or permit issued by the Connecticut Agricultural Experiment Station or by the United States Department of Agriculture.

#### Regulation 5. Marking Requirements

1. Every car, box, bale, or other container of articles for which certificates or permits are required by these regulations shall be plainly marked with the name and address of the consignor and the name and address of the consignee, and shall bear attached to the outside thereof the proper certificate or permit issued in compliance with Regulation 4 hereof.
2. The certificates or permits in the case of carload and other bulk shipments shall accompany the waybills, conductors' manifests, memoranda, or bills of lading pertaining to such shipments.

#### Regulation 6. Thorough Cleaning Required of Cars, Boats, and other Vehicles Before Moving Intrastate

Cars, boats, and other vehicles which have been used in transporting within the regulated areas plant products covered by these regulations or any other articles which may hereafter be made subject thereto shall not be moved or allowed to move intrastate unless the same shall have been thoroughly swept out and cleaned by the carrier at the point of unloading or destination of all litter and rubbish from such regulated articles. No litter, rubbish, or refuse from any such plants and plant products shall be moved or allowed to move intrastate.

#### Regulation 7. Inspection in Transit

Any car, vehicle, basket, box, or other container moved intrastate or offered to a common carrier for shipment intrastate, which contains or which the inspector has probable cause to believe contains articles the movement of which is prohibited or restricted by these regulations, shall be subject to inspection by an inspector at any time or place.

#### Regulation 8. Cancellation of Certificates and Permits

Certificates and permits issued under these regulations may be withdrawn or canceled by the inspector and further certification refused, either for any failure of compliance with the conditions of these regulations or violation of them, or whenever in the judgment of the inspector the further use of such certificates might result in the dissemination of infestation.

#### Regulation 9. Shipments by the Connecticut Agricultural Experiment Station or by the United States Department of Agriculture

Articles subject to restriction in these regulations may be moved intrastate by the Connecticut Agricultural Experiment Station or by the United States Department of Agriculture for experimental or scientific purposes on such conditions and under such safeguards as may be prescribed by the Connecticut Agricultural Experiment Station or by the Plant Quarantine

and Control Administration. The container of articles so moved shall bear, securely attached to the outside thereof, an identifying tag from the Connecticut Agricultural Experiment Station or the Plant Quarantine and Control Administration showing compliance with such conditions.

These revised rules and regulations shall be effective on and after February 1, 1931, and shall supersede the rules and regulations accompanying Quarantine Order No. 24, effective January 15, 1930.

Approved:

WILBUR L. CROSS,  
Governor.

WILLIAM L. SLATE,  
Director.

#### SUMMARY OF REGULATIONS

For the guidance of growers and shippers, the regulations about moving crops from the quarantined area (see Figure 5) to the free area are given below:

##### Movement Not Allowed

Applies throughout the year: Corn on the ear, either green or dry, cornstalks, broom corn, sorghum and Sudan grass, including all parts of leaves and stems, except that green corn on the cob may move between January 1 and June 14. Inspections and permits refused.

##### Movement Allowed with Certificates

Applies throughout the year: From the two-generation area all cut flowers and entire plants of aster, chrysanthemum, dahlia, and gladiolus, must be inspected and certified for shipment. (No restrictions on gladiolus and dahlia bulbs without stems.)

Applies from June 1 to December 31: All celery, green shell beans in the pod, beets with tops, and rhubarb must be inspected and certified. (No restrictions from January 1 to May 31.)

##### Unrestricted Movement Allowed

Applies throughout the year: All dry shelled corn and the seed of broom corn, sorghum, and Sudan grass, string or wax beans, oat or rye straw, celery and the cut flowers or entire plants of cosmos, hollyhock and zinnia.

For further information about the European corn borer apply to:

W. E. BRITTON, Connecticut Agricultural Experiment Station, New Haven.  
In charge of State regulatory work.

H. N. BARTLEY, 22 Elizabeth St., South Norwalk, Conn. In charge of Federal control work.