N E W S L E T T E R

PLANT QUARANTINE AND CONTROL ADMINISTRATION

UNITED STATES DEPARTMENT OF AGRICULTURE

Number 3 (NOT FOR PUBLICATION) March, 1931.

ADMINISTRATIVE

The First Deficiency Act for the fiscal year 1931 was approved February 6. The only item included therein applying directly to the work of the Administration is an appropriation of $675,000 to compensate farmers in Arizona for losses sustained because of the enforced nonproduction of cotton. This amount is believed to be adequate to compensate in full for actual and necessary losses for which compensation is authorized by the Act approved February 8, 1930. A proviso is included in the language which provides that full compensation shall be paid by the Federal Government to Indians farming land on Indian Reservations within the noncotton zone. It is estimated that approximately $20,000 will be required to pay such claims. The State of Arizona will reimburse the Federal Government for one-half of the amount paid to farmers other than Indians residing on Indian Reservations.

The Second Deficiency Bill was reported to the House on February 18, 1931, and contains an item providing for the reappropriation of the unexpended balance of funds available this fiscal year for work on the Mediterranean fruit fly. This balance is reappropriated "under the following conditions: $80,000 of such balance for use in research work in the Hawaiian Islands, Brazil, and the West Indies; and the remainder of such balance for use as an emergency fund to be released for expenditure when, in the judgment of the President of the United States, an infestation of the Mediterranean fruit fly renders such action necessary." The bill passed the House on the afternoon of the 19th.

The bill making appropriations to the Department for the fiscal year 1932 passed both Houses of Congress by February 19, and provides more than $3,500,000 for work of the Administration for the fiscal year 1932. No appropriation for work on the Mediterranean fruit fly is included in this bill. The bill provides that $35,000 shall be immediately available for the construction of a fumigation house at Presidio, Tex. It also provides for an

appropriation of $950,000 for the control and prevention of spread of the European corn borer. This is the amount of the Budget estimate. As the bill first passed the House it reduced the Budget estimate for work on the European corn borer by $210,000. This amount was reinstated by the Senate and this Senate amendment is now approved by the House.

FOREIGN PLANT QUARANTINES

QUARANTINES OF FOREIGN COUNTRIES

From its inception the Federal Horticultural Board endeavored to establish a file of plant quarantine laws, regulations, and restrictions of foreign countries, not only for its own information, but also for the assistance of anyone interested in the exportation of plants, bulbs, seeds, fruits, and vegetables to those countries.

Frequent requests were made for information of this character. Therefore, to afford a ready means of furnishing such data, the plant quarantine restrictions of some of the more commercially important countries of Europe were briefly summarized and published as mimeographed HB circulars. These included HB-151 of May 15, 1922, containing very condensed summaries of the plant quarantine restrictions of Holland, Germany, France, Belgium, and England; HB-160 of January 8, 1923, quoting the English "Destructive Insects and Pests Order of 1922;" HB-169 of July 17, 1923, quoting the corresponding Order of the Irish Free State; HB-199 of March 9, 1927, applying to Denmark. Most of these have become obsolete or require revision and the need of additional pamphlets has become more obvious. Therefore, Mr. Harry B. Shaw, of the Division of Foreign Plant Quarantines of this Administration, has undertaken the translation of the original texts of the foreign plant quarantine laws, decrees, proclamations, etc., and the preparation of a series of PQCA circulars of foreign plant quarantine summaries. In these circulars it is planned to set forth clearly and concisely the plant quarantine restrictions of the respective countries; in general, including only restrictions that may affect plant material offered for export from the United States to those countries, and not necessarily the entire body of the restrictions of each country. Neither have these summaries been encumbered with the penalty clauses of foreign quarantines. The pamphlets are multigraphed and bound in substantial covers in such a manner that the wire clips can be readily removed for the insertion of supplementary sheets.

The following foreign plant quarantine circulars are now available:

PQCA--283,	Cuba,	published	July 1, 1930;
284,	Mexico,	"	July 1, 1930;
294,	Brazil,	"	Sept. 22, 1930;
297,	So.Africa,	"	Oct. 16, 1930;
299,	Australia,	"	Nov. 11, 1930;
301,	France,	"	Nov. 20, 1930;
302,	Germany,	"	Dec. 27, 1930;
303,	Netherlands,	"	Jan. 15, 1931.

A circular on the restrictions of Denmark is now ready for printing. Similar summaries of all the more commercially important countries will follow. It is the intention to keep these publications up to date by means of supplementary sheets as the need may arise. Supplement No. 1 to Circular PQCA-283, Cuba, was published Dec. 31, 1930.

Copies of these circulars will be furnished gratis on application. Their full texts are being reprinted in the Service and Regulatory Announcements of the Plant Quarantine and Control Administration, those of PQCA-283, Cuba; PQCA-284, Mexico; PQCA-289, Italy; and PQCA-294, Brazil, already having been reprinted in the S. R. A. for July--September, 1930.

The circulars are believed to be correct and complete up to the time of their preparation, but it is not intended that they shall be used independently of, nor as substitutes for, the original texts of the quarantines, and they are not to be interpreted as legally authoritative. The quarantines themselves should be consulted for the exact texts, and for that reason those quarantines are cited in the circulars.

It may be added that the Division of Foreign Tariffs, Bureau of Foreign and Domestic Commerce, is in a position to supplement the data on the plant quarantine restrictions of foreign countries with information concerning the tariffs and other commercial requirements.

Mexico to Publish Our Summaries

The Republic of Mexico has recently requested permission to publish in its monthly bulletin the series of summaries of Foreign Plant Quarantine requirements mentioned above, stating that they find these very helpful.

RECENT INSECT INTERCEPTIONS OF INTEREST

Fruit fly in Cotoneaster.--The recent finding of seven pupae of the Mediterranean fruit fly in imported seeds of *Cotoneaster henryi* presents some rather unusual features. The small amount of somewhat dried pulp around these seeds would not be expected to provide adequate nutriment to fruit-fly larvae; yet this shipment, and a similar interception almost a year ago containing 22 pupae, clearly serve to establish these pulpy seeds in the list of dangerous hosts. A further point of interest is that the recent importation originated in the vicinity of Orleans, France, thus hinting once more at a more northern extension for this species, at least sporadically, than the established range close around the Mediterranean.

Workman finds fruit fly.--At one of the ports on the Mexican border a workman engaged in feeding confiscated materials into the incinerator discovered some larvae of the Mexican fruit fly (*Anastrepha ludens*) in intercepted fruit. Such alertness and interest in the work is commendatory.

Citrus medica a fruit fly host.--The Mediterranean fruit fly (*Ceratitis capitata*) was intercepted at Detroit in fruit of *Citrus medica* in the mail from Italy. This represents our first interception of this or any other fruit fly in *Citrus medica*.

Considerable amounts of this fruit are imported by Hebrew people in connection with the religious celebration, Yom Kippur. It is known as "etrog" or sacred citron or citrat. As the fruit is required to be perfect it brings high prices. The favored origin is from Palestine.

Heavy infestation of olive fly.--Adults, larvae, and pupae of the olive fly (*Dacus oleae*) were taken at New York in a cargo shipment of ten pounds of green olives from Italy. Pupae of this fruit fly were very numerous in the packing around the olives, a total of 163 pupae having been found in this shipment. This Trypetid has been previously taken in olives from Greece, Italy, Portugal, South Africa, and Spain.

Six "Med fly" interceptions in one month.--The Mediterranean fruit fly (*Ceratitis capitata*) was intercepted six times at New York during the month of January--once in a mail package, and five times in appraisement entries at the Appraiser's Warehouse.

On January 19, a package from Italy, containing 40 tangerines and 4 sweet limes, was intercepted in the mails. Sixteen pupae of *Ceratitis capitata* were taken from the tangerines but no infestation was found in the sweet limes.

At the Appraiser's Warehouse five entries of miscellaneous merchandise from Italy were found to contain tangerines infested with Mediterranean fruit fly. One case produced 1 pupa; another 4 pupae, and two others contained 2 pupae each. Another lot produced 1 adult fly.

Menace of noncommercial entries.--The New York interceptions of Mediterranean fruit fly and the olive fly mentioned above are of particular interest inasmuch as they were found in noncommercial entries, the nature of which could be determined only by examination. Such entries on the manifest are generally described as "provisions" and constitute a great risk of the accidental introduction of fruit flies and other insects.

Pink bollworm found in Chinese cotton.--A dead pink bollworm (*Pectinophora gossypiella*) was found at Washington, D. C., in a sample drawn after fumigation from a bale of Chinese cotton imported at San Francisco and shipped in bond to Savannah. The larva was badly mashed and mutilated as a result of the high compression which the Chinese usually give their cotton before shipment.

Other insect interceptions.--Larvae of *Rhagoletis* sp. (*Trypetidae*) were found at Nogales, Ariz., in fruit of *Crataegus pinnatifida* (Chinese hawthorn) in express from Guadalajara, Jalisco, Mexico. This represents our first interception of Rhagoletis from Mexico; other interceptions being from Canada, France, Italy, Norway, and Yugoslavia.

The sugarcane moth borer of India (*Chilo simplex*) was intercepted at Seattle in rice straw packing in cargo from Japan. This Pyralid has been taken on several occasions in rice straw from Japan and it was found once in bamboo shoots from the same country. The larva also burrows in the stalks of cane, corn, sorghum, and millet. This insect is not reported from the United States.

The green scale (Coccus viridis) was recently taken on banana and Panax sp. from Cuba. This Coccid, which is not reported from the United States, has previously been intercepted on various hosts from Brazil, Cape Verde Islands, Ceylon, Hawaii, Straits Settlements, and the West Indies.

Larvae of Palaeopus costicollis (Curculionidae) were taken at Philadelphia in sweetpotato in stores from Jamaica. This is our first interception record of this weevil in sweetpotato. It has previously been taken in yams from Haiti and Jamaica. It does serious damage to sweetpotatoes in Jamaica.

Larvae of the turnip gall weevil (Ceutorhynchus pleurostigma) were intercepted at Philadelphia in turnips in stores from England. It has also been taken in turnips from Belgium, Denmark, France, Germany, and the Netherlands, and in horseradish from Czechoslovakia and Hungary. This weevil, which does considerable damage, is not reported from the United States.

RECENT PATHOLOGICAL INTERCEPTIONS

The interception of Tylenchus dipsaci at Philadelphia, Pa., January 8, 1931, in potatoes from Prince Edward Island (in ship's stores) is of considerable interest since this appears to be the first report of this nema in this host for North America. We have been advised that T. dipsaci is a major pest of potatoes in some parts of Europe. There have been recent interceptions of it from England, Germany, and Holland.

Tylenchus dipsaci was found to be fairly numerous in an onion from Holland (in ship's stores) intercepted at Philadelphia, Pa., January 5, 1931. We are advised that this nema has not been reported in this host from the United States.

As an evidence that packing material may carry more or less important plant diseases, the interception of Glomerella cingulata on cherry wood strips used as packing material from France could be cited. G. cingulata is one of the common anthracnose fungi so troublesome in the United States. The interception was made at the Washington Inspection House. The same inspector also intercepted the uredinial and telial stages of Puccinia obtecta on Scirpus sp. (Tula grass) used as packing material around plants that were shipped from Chico, Calif., through the Inspection House. We have been informed that this rust is not common.

Some of the diseases more or less plentiful in Europe are not so commonly found in other parts of the world. A specimen of "witloof" (Cichorium intybus) from Belgium (in cargo) intercepted at New York City last December, was found to be heavily infected with a sclerotium-forming fungus. Dr. H. H. Whetzel, of Cornell University, determined the fungus as Sclerotinia minor and remarked that this was the second record from Europe, it having been previously isolated from a lemon in Italy. He expressed himself as having little doubt that this fungus was common and widely distributed in Europe but that it has been overlooked.

Two inspectors stationed at Seattle recently intercepted several specimens of the black-spot disease of citrus (Phoma citricarpa) on orange peel

from China. This disease, according to Fawcett and Lee ("Citrus Diseases and their Control", p. 479), has been known in Australia since 1895, and within recent years has been found to be widely distributed in China. It is entirely unknown in the western hemisphere. It causes an injury to the crop that is much the same as that of citrus canker on the fruits.

Some apples from Switzerland (in mail) were intercepted at Philadelphia, Pa., in November, 1930, and Dr. A. E. Jenkins, of the Bureau of Plant Industry, found that the disease on the peel was caused by a species of Sphaceloma which occurs on apples and pears in several European countries but is not known to occur in the United States. The same disease was intercepted some time ago in New York on apples from Ireland and from Italy. In this connection attention is called to "List of Pests Intercepted on Imported Plants and Plant Products During the Calendar year 1929", pp. 250 and 277, where Sphaceloma sp. is reported on apple fruit from England. A more extended and critical study of cultures obtained from the lesions on the intercepted fruit in question resulted in a new determination of apple scab (Venturia inaequalis) to supersede the one recorded. This instance serves to emphasize the importance of critical study of all diseased material coming under the observation of this Administration.

Inspectors on the Mexican border who read these pages will undoubtedly recall circular memoranda to Chief Inspectors requesting that a close watch be kept for the occurrence of Lima bean scab on Lima beans from Mexico. The prevalence of this disease in Cuba and the reports of it from Porto Rico suggested the likelihood of its presence in Mexico. An inspector confirmed these suspicions by intercepting a specimen of this disease on Lima beans from La Cruz, Sinaloa, Mexico, entering the United States at Nogales, Ariz., January 15. Another inspector at Nogales, not to be outdone by his coworker, submitted a specimen of the same disease which he had intercepted on January 29.

The peculiar condition of potatoes arriving from the State of Sonora, Mexico (in cargo), attracted the attention of inspectors at Nogales and Naco, and caused them to submit specimens for determination. The tubers submitted were found to be infested with the common root-knot nematode, Caconema (Heterodera) radicicola. That a cargo of carrots was also infested with this nema was substantiated by a specimen submitted from Naco on January 28. The peculiarity of the root-knot galls on these carrots suggested crown gall to this inspector, as similar galls on carrots have to other inspectors in the past.

Three recent interceptions at New Orleans of potatoes from Brazil were found to be infested with the nematode Tylenchus pratensis. Dr. Steiner, of the Bureau of Plant Industry, reported the last of these interceptions to be fairly swarming with them.

An onion from Japan recently intercepted at Philadelphia harbored a heavy infestation of the nema, Cephalobus elongatus. There is some question as to whether C. elongatus may not be parasitic under certain conditions.

A specimen of Iris bloom showing a bad case of mosaic was recently intercepted at New York City from Canada. This Iris mosaic is an aphid-transmitted virus disease.

A specimen of Euonymus radicans var. from Japan (in furnishings) intercepted at Seattle was found to be infected with Gloeosporium euonymicolum, which, according to Stevenson's Manual, causes a leaf fall of this host in Japan.

The leaf-spot Cercospora pisa-sativae on garden peas from Porto Rico, was recently submitted by inspectors stationed on the Island, which disease is reported from Porto Rico and Cuba. These inspectors also submitted a specimen of Pseudoperonospora cubensis on cucumber grown on the Island. This disease, a downy mildew, is widely distributed in the continental United States east of the great plains, especially in the Gulf and Atlantic Coast States.

A rotten Scilla bulb, found at New York City in a cargo from Italy, contained a new species of the nematode Diplogasteroides. Thus it happens that inspectors of this Administration are able to contribute materially to the advancement of scientific knowledge. In this connection it is interesting to note that two publications by a worker in the Bureau of Plant Industry, which are soon to appear, have been based to a large extent on intercepted material referred for identification.

An interception at New York City of spruce cones from Poland (in mail) showed numerous fructifications of the fungus Discella strobilina, which belongs to the same group of fungi that includes the poplar canker organism, Dothichiza populea.

In an interception at Seattle of leaves from the Hawaiian Islands, the host was not identified by the botanist to whom it was referred, but by the mycologist who recognized the host by the presence of a characteristic rust fungus Uromyces alyxiae; thus assuring that the host was a species of Alyxia.

An interesting rust was intercepted on a Departmental shipment of Sutherlandia frutescens from South Africa, at the Inspection House at Washington. The specialist to whom this disease was referred is unable to give a definite determination at the present time and it has been recorded temporarily as Uredo sp.

A report recently received of the inspection of some imported nursery stock indicated the presence of root gall. Since the term "root gall" is frequently used in connection with a nematode disease and also with crown gall, this office was surprised to find upon inquiry that the galls in this case were of insect origin. Moral: It pays to be specific when employing common terms in scientific usage.

The Review of Applied Mycology for January, 1931, abstracts a paper which calls attention to the recent detection (June 1, 1930) of Puccinia mirabilissima (Uropyxis sanguinea) on Mahonia in England; this being apparently the first record of this rust in England.

The same fungus was intercepted at New York, December 2, 1930, on Mahonia plants in baggage from England.

NOTES FROM THE PORT OF SAN FRANCISCO

Foreign mail inspection.--Plant material arriving through Customs Postoffice was double that of last year, requiring almost the entire time of two inspectors. This includes the handling of special permit material (P. Q. C. A.) as well as cotton samples and miscellaneous gift packages containing plant material. A total of 897 separate shipments were inspected of which 181 were refused entry and 272 treated.

Hawaiian mail inspection.--There were 7,822 packages opened of which 2,974 were found to contain agricultural material. Major interceptions of contraband material were two lots of 76 oranges and one lot of 12 avocados infested with Mediterranean fruit fly larvae, one lot of mango seeds infested with mango seed weevil, several lots of cooking bananas, bamboo cuttings, fruit leis, and miscellaneous lots of infested tree seeds and vegetables.

Foreign pest interceptions.--In 1930 a total of 4,826 pest interceptions were made, an increase of 765 over 1929. A few of the major pests and diseases intercepted were: Melon and Mediterranean Fruit Fly, Hawaii; Oriental Fruit Moth, Japan; Citrus Black Fly, Central America; Pink Bollworm in cotton, China, India, and Hawaii; Citrus Canker, China, Japan, and Philippine Islands; and nut Tortrix, Italy, Japan, and Switzerland.

Cotton importations.--Thirty-four thousand four hundred and thirty-eight bales and 179 samples of cotton were imported and vacuum fumigated. This represents an increase of 12,401 bales over 1929. Four thousand and twenty-five cottonseed-infested freight cars arriving from other States were ordered fumigated, cleaned, and the cottonseed destroyed.

Export certification.--During the year, 113 Export Certificates were issued covering 48,935 packages of California fruits and vegetables destined to Brazil, Argentina, Peru, Chile, Java, Malay States, and the Philippine Islands.

Correction

In the note in the last issue (No. 2, February, 1931) recording the finding of Physoderma on a doll from Mexico, the common name of the disease should be "brown spot" instead of downy mildew.

DOMESTIC PLANT QUARANTINES

PHONY PEACH DISEASE QUARANTINE

A supplementary conference at which further consideration was given to the desirability of either extending or cancelling the phony peach disease quarantine regulations was held at the Biltmore Hotel, Atlanta, Ga., on February 4. During the same week the Association of Southern Agricultural Workers held their annual convention, and the Southern Plant Board had a regularly scheduled meeting. The registration list for the phony peach disease conferenc

shows 47 in attendance, representing growers, plant quarantine officers, and others interested, from the States of Georgia, Alabama, Mississippi, Arkansas, South Carolina, North Carolina, Florida, and Texas, in addition to the U. S. Department of Agriculture. Mr. Strong presided over the meeting, and a statement on the distribution of the disease was presented by Doctor Fracker. Those who spoke on the subject before the conference included M. S. Yeomans, State Entomologist of Georgia; Paul H. Millar, Chief Plant Inspector of Arkansas; R. W. Harned, State Entomologist of Mississippi; W. E. Anderson, State Entomologist of Louisiana; John Fraser, Jr., Huntsville, Ala.; and Doctor Kellerman, Doctor Hutchins, and Mr. Turner, of the Bureau of Plant Industry.

Transit inspection for the enforcement of the phony peach disease quarantine was discontinued at Memphis, Tenn., in the early part of February, in view of the light movement of nursery stock through that station at this period of the year. Mr. H. J. Conkle, who was carrying on the work at that place, was transferred to Atlanta, Ga., to assist Mr. G. W. R. Davidson, who is in charge of transit inspection work and phony peach disease activities in the Southern States.

TRANSIT INSPECTION

A summary of the transit inspection work in the Far West, recently sent in by Mr. C. R. Stillinger, of Spokane, Wash., District Inspector in Charge, shows that during the five-month period ending January 1 of this year, 51 interceptions for quarantine violations were made. Thirty-five of these were seen at Portland. Inspection was carried on at Ogden, Portland, Rieth (Oreg.), Seattle, and Spokane. A total of 24,581 shipments were examined.

A truckload of ear corn weighing 11,800 pounds was recently intercepted by transit inspector T. L. Thompson at Indianapolis, Ind., and turned back to the point of origin in the European corn borer regulated area. Four other apparent violations of the Indiana State corn borer quarantine consigned to Indianapolis from the regulated area were also reported during the first week of Mr. Thompson's temporary assignment at that city to carry on transit inspection activities there. These infringements were discovered by inspecting incoming loads of grain at elevators and examining railroad waybills.

The following interceptions were made in the Southern district between January 31 and February 12: One violation of Quarantine 62 at Memphis, Tenn., one violation of Quarantine 48 at Birmingham, Ala., and two apparent violations of Quarantine 67 at Atlanta, Ga.

During the month of January 250 shipments of peach and other restricted nursery stock were certified by Administration inspectors for nurserymen at Concord, Ga. Shipments were made by mail, express, and freight to 12 eastern and southern States.

Mr. C. R. Stillinger, early in February, conferred with Mr. Wilbur D. Courtney, of the Bureau of Plant Industry, in charge of the Nematology Office at Salt Lake City, with reference to the diagnosis and control of bulb nematodes

and received some helpful suggestions. On the same visit to Salt Lake City, Mr. Stillinger was invited by Dr. F. E. Stephens, in charge of nursery inspection work for the State of Utah, to attend an informal conference of Utah State inspectors which was being held in that city. The inspectors expressed an interest in Federal quarantines and a desire to help enforce them, at least to the extent of reporting apparent violations, and Mr. Stillinger reviewed those parts of the Federal regulations which had not been clear to the inspectors.

General Agent M. B. Burke, of the Chicago Warehouse and Terminal Company operating the freight tunnel system which consists of five receiving stations and 62 miles of underground trackage connecting directly with all freight in and outbound transfer houses in the Chicago city district, has instructed his five foremen in charge of the handling of freight over this system of tunnelling, to report to the P. Q. C. A. transit inspection office every shipment of nursery stock, bulbs, and corn on cob accepted by this company for movement via their underground tunnel system for transfer from one connecting line to another, giving name of railroad, consignee and consignor, and destination of articles. This company has reported to this office by telephone as many as 90 shipments handled by their line during a period of 8 hours.

NARCISSUS BULB QUARANTINE

On January 29 and 30 a public conference was held in the United States National Museum, for the purpose of reviewing the entire situation with respect to the foreign importation and interstate movement of narcissus bulbs with a view to promptly determining whether the present restrictions are necessary for the protection of American agriculture and horticulture from pests.

The conference was largely attended, 146 persons from 17 States registering, in addition to some others present who did not register their names. Those present included a considerable number of Members of Congress, growers, State nursery inspectors, entomologists, pathologists, and representatives of importers and florists.

Following Mr. Strong's opening statement, the Members of Congress were given the opportunity to present their views on the subject first. Seven senators and eight representatives spoke. The distribution of narcissus bulbs in the United States and the localities in which bulb pests had been found were then outlined by Doctor Fracker, after which Mr. Sasscer presented data on the interception of pests in narcissus bulbs at the ports of entry.

The conference was then open to the general public. Most of the growers during the remainder of January 29 and part of the forenoon of January 30 were presented by Mr. T. F. Gronin, President of the newly-organized American Narcissus Growers Association. In addition to the growers introduced by Mr. Gronin, several representatives of the florists, importers, entomologists, and pathologists, spoke on the phases of the subject in which they were interested.

Almost without exception, those who spoke at the conference urged the tightening, rather than relaxation, of both foreign and domestic restrictions.

DATE SCALE

In January a careful inspection of the infested districts in the Coachella Valley commenced in October was completed and no new infested properties found. This would indicate that the infestations resulting from the centers of spread found in 1927, 1928, and 1929 have been located. It is possible, however, that some light infestations have been overlooked in the infested area and that infestations resulting from movement of offshoots from gardens later found infested may yet be found in the districts considered scale-free.

A survey of the nothern part of the Imperial Valley was completed this month and no scale found. No scale has ever been reported from this area.

Considerable intensive inspection was carried on in all areas and seven infested palms found--five in the Imperial Valley, two in the Coachella Valley, and none in Arizona.

EUROPEAN CORN BORER AND JAPANESE BEETLE

Newly promulgated European corn borer regulations, effective January 23, 1931, involve changes in both the one-generation and the two-generation regulated areas.

The two-generation regulated area has been extended to include the following: Parts of 4 counties in Connecticut; parts of 6 counties in Maine, and parts of 3 counties in Massachusetts. The following areas have been transferred from the one-generation to the two-generation regulated area: Parts of 3 counties in Massachusetts; part of 1 county in New Jersey; all of New York City, and parts or all of 5 additional counties in New York State.

In the one-generation regulated area, part of 1 county in Connecticut, parts of 11 counties in Indiana, parts of 2 counties in New Jersey, parts of 7 counties in Ohio, parts of 3 counties in Pennsylvania, and parts of 7 counties in West Virginia have been added, while part of Middlesex County, in New Jersey, and the entire counties of Orange and Rockland, in New York, have been released from restriction.

Further changes in the requirements affecting the movement of restricted articles include the removal of the restrictions on (1) the shipment of ear corn from the one-generation area to the two-generation area where such areas are contiguous in New England and New York; (2) the shipment of green corn on the cob from the two-generation area to outside points during the period from January 1 to June 14, inclusive, when no green corn of local production is available and (3) the shipment of string and wax beans from the two-generation regulated area to outside points.

The revised regulations are now being distributed to the various shippers affected by the changes made.

Preparatory to clean-up measures to be carried on in the town of Danbury, in Fairfield County, Conn., and in the township of Montclair, in Essex County,

N. J., the various areas to be cleaned up have been carefully checked, growers interviewed, and all preparations made in connection with the carrying on of these projects.

More than 70 truckloads of cob corn have been intercepted at quarantine stations now in operation on bridges across the Ohio River into the State of Kentucky. This is only a small amount of the corn which would have been carried into the free area of Kentucky had not the quarantine stations been in operation, as considerable publicity has been given to the fact that these stations have been established. A number of inspectors are working in cooperation with the officers of the Department of Conservation of the State of Indiana in checking the place of origin of returned intercepted shipments, and also in verifying claims of certain shippers that the corn originated outside of the quarantined area.

The new building providing additional space at the Norwalk, Conn., station was completed January 1, and automotive repair equipment is in the process of installation. Alterations of the present office space which provide for additional offices on the second floor are completed, and further alterations are being made on the first floor to provide additional office space made necessary because of the consolidation of the European corn borer and Japanese beetle projects.

The fiscal and business work of the corn borer project and the Japanese beetle project has now been combined at South Norwalk, Conn. Mr. H. C. Ameigh, Administrative Assistant, formerly stationed at Toledo, Ohio, has been transferred to South Norwalk with several clerical workers. Three clerical employees have been transferred to South Norwalk from the Japanese beetle office at Camden, N. J. The consolidation of the work has already resulted in a considerable saving in personnel.

Printed copies of the Japanese beetle quarantine (Eighth Revision), and supplemental regulations, effective November 10, 1930, together with colored Japanese beetle quarantine maps, have been distributed to nurserymen, greenhouse men and dealers, postmasters, agents of common carriers, and other parties in interest within the areas under regulation for the Japanese beetle. Approximately 20,000 copies each of the map and regulations are necessary for publicity purposes throughout the area regulated under this quarantine.

An inspector has been assigned to Norfolk, Va., to attend to the inspection and certification of quarantined materials in the small isolated lightly infested regulated area comprising the cities of Norfolk and Portsmouth and a small portion of the adjacent territory.

Between December 9, 1930, and January 1, 1931, we loaned 42 trucks to the Post Office Department in Toledo. These trucks were in use 2200 hours during this time.

We have inquired relative to the cost of renting similar trucks and found that a good basis would be $1.25 an hour for each truck. Therefore, the

estimated savings to the Government on the 42 trucks would be $2,750.

The Toledo Post Office Department loaned two of these trucks to the Post Office in Tiffin, Ohio, and three to Findlay, Ohio. These five trucks, however, were figured in when estimating the savings.

An application of aluminum paint to the office in the Camden headquarters used for map drawing and similar work has resulted in improved lighting conditions for this work. The aluminum finish tends to eliminate shadows, prevent glare, and more fully diffuse sunlight and artificial light, when the latter is necessary.

MEDITERRANEAN FRUIT FLY

In further recognition of the changed character of the project, due to cessation of all activities other than in relation to field inspection, a meeting of the district inspectors, to plan more efficient work during the current fiscal year, was convened at Orlando on Friday, January 2, and continued through Saturday, the 3rd. A preliminary conference to outline the program had been held on Wednesday evening preceding, attended by Messrs. Hoidale, Kimball, Gaddis, Langford, Lance, and Johnson. All supervising inspectors were present throughout the two-days proceedings, with the Orlando offices represented by the foregoing personnel. Expressions from the district leaders took up a large portion of the morning session on the first day, discussion of sundry problems mentioned by them having been taken part in by practically all who were present. In the afternoon there was work in the field, Mr. Benjamin having taken the place of Mr. Hoidale in the representation from headquarters. A night session of two hours was devoted to detailed consideration of inspection methods. At the morning session of the second day there was presented a detailed analysis and grouping of specimens submitted by each field inspector in the several territories, a copy of the tabulation covering all districts later having been supplied to each supervising official. Attention was called to discrepancies in the preparation of various field reports and numerous suggestions offered for correction of these deficiencies. In the informal discussions consideration was given to leaves of absence, accidents to employees, use of government and personally owned cars, and other routine matters. Following a lengthy talk by Mr. Benjamin on the feeding and breeding habits of insects, their preferred hosts, relative resemblance to the Mediterranean fruit fly, etc., the field men visited the Identification Division for observation of the methods of receiving, identifying, and grouping specimens.

Beginning on January 5, Mr. Hoidale held a series of conferences with division heads and other employees regarding numerous phases of office and field procedure. Among the major topics discussed in this connection were the handling of correspondence regarding claims for damage, the closer scrutiny of expense accounts so that it may be ascertained whether or not there are any excessive allowances requested, the checking of applications for leave to avoid extension of privileges before they are earned, and examination of personnel papers of applicants for positions who may be considered in the event additions or replacements are found necessary in the field force. Later in the month these matters were given more detailed attention, and the decision was reached

to modify some of the methods heretofore used to lessen the amount of "paper work" required of inspectors wherever it is felt that this can be safely done. Effort to obtain complete coverage of the territory in the former regulated area at frequent intervals was abandoned in a degree to permit greater concentration on sections which are felt to be particularly dangerous from the standpoint of possible infestation. Subsequently Mr. Hoidale started on a series of personal calls to each of the district offices, on which he will be alone. These visits were temporarily interrupted while Mr. Hoidale and Mr. Kimball were engaged in a survey of the lower coastal and intervening interior sections outside the former eradication area. A number of field trips also were made by Mr. Kimball, and Messrs. Gaddis, Lance, and Langford were engaged in outside supervisory work most of the time.

Formation of the Florida growers reimbursement committee was effected at a meeting in Orlando on January 8, attended by a group of growers, shippers, and others. The movement is headed by W. J. Howey, Howey-in-the-Hills, as chairman, and H. C. Babcock, Orlando, secretary. Blank forms have been widely distributed by the committee for submission of claims, which are to be supported by affidavits, on account of losses and damage alleged to have been sustained in consequence of Mediterranean fruit fly eradication measures. These documents are to be collected, it is stated, and forwarded not later than February 15 to Chairman Wood, of the House Appropriations Committee, for use in securing an appropriation whereby growers may be compensated. Failure of the public to understand the nonofficial character of the movement caused the Orlando offices of the Administration to receive many requests for information and for access to the records on crop destruction. The committee has absolutely no official standing.

Appointment of P. K. Yonge to succeed himself as member of the State Board of Control was announced by Governor Carlton early in January. Except for a brief period between 1917 and 1921, Mr. Yonge has served on this body since its creation by the Florida legislature in 1905. From the time that the State Plant Board was brought into existence, following the citrus canker infection, Mr. Yonge also has been its chairman, the membership being the same as that of the Board of Control.

Making a flying visit to Florida, Mr. Strong, Chief of Administration, arrived Thursday, January 15, and returned to Washington on Saturday, the 17th. Part of each of the three days was spent by Mr. Strong in the Orlando offices, and while in the State he observed field conditions from Jacksonville as far south as Winter Haven, in company with Mr. Hoidale and others.

Compilation of personnel records on men remaining in the employ of the project, requested by Mr. Strong as the basis for reply to allegations of discrimination against ex-service men, disclosed the fact that of 212 field inspectors on duty January 1, 1931, 96 either were war veterans or are at present listed for military service.

Charges affecting three members of the field force, in two districts, were preferred during the month by their official superiors. After investigation

directed by Mr. Hoidale, recommendations were made for the suspension on leave-without-pay basis of all three men, followed later by termination of their appointments.

Copying of the records in respect to ownership of citrus properties, kept in the various district offices, has been undertaken by the State Plant Board, which, it is understood, will make the information available to the Florida Citrus Growers Clearing House Association and the Florida Citrus Exchange.

Supply of a suit of coveralls for each field inspector in the Mediterranean fruit fly project has been arranged for by the State Plant Board, to facilitate compliance with its rules in reference to the inspection of groves for citrus canker.

January examinations in the Identification Division included 36,709 specimens from the Mediterranean fruit fly project and 8,184 from the Mexican fruit worm project. All determinations of specimens collected in Florida were of a negative character.

Three refusals to permit entry of property for purposes of inspection were reported this month. One of these, however, later was overcome through good work on the part of inspectors in the district.

Weather conditions highly unfavorable to field inspection, including abnormally low temperatures and excessive rainfall, continued until the end of the third week of the month.

MEXICAN FRUIT WORM

Heavy rains throughout the latter part of January seriously handicapped the inspection of groves with the result that the grove inspection schedule was several days behind at the end of the month. The precipitation for the month was 4.56 inches, while the average since 1871 is 1.5 inches for January. In spite of the inclement weather, 7,095 specimens likely to be mistaken for the fruit fly were submitted for identification during the month. None of these from fruit grown locally in the Valley and Matamoros were fruit fly specimens.

The movement of fruit continued sluggish due to a weak market and to the rains which prevented the packers from getting in the groves to cut the fruit. However, about 85 per cent of the crop has been harvested to date, and with fair weather no difficulty is anticipated in being cleaned up by the first of March. The great majority of the fruit remaining in the orchards consists of Valencia oranges.

Inspection was carried on in Matamoros throughout the month. All inspections of locally-grown fruit gave negative results. However, the fruit imported to the market at Matamoros from the southern part of the Republic of Mexico showed a heavier infestation than at any time since September, 1930. A total of 241 larvae of the fruit fly were taken from fruits which were discarded by the merchants. Many of the infested fruit are sold before evidence of injury becomes

apparent.

Four peach trees were found and dug up during the month.

PINK BOLLWORM

Field activities, in connection with the scouting program for the 1930 crop, have been completed. The work from now until the end of the season will be laboratory inspection. A total of 8,154 field inspections were made, each inspection consisting of the examination of 100 bolls. Of this number 4,755 inspections were made in the regulated area, the majority being in the Salt River Valley of Arizona and the Western Extension of Texas. The releasing of part of the Western Extension from the regulated area was mentioned in a previous news letter. It was necessary to make an intensive inspection in this area to determine the present status of the old infestation prior to the hearings held to consider this release. Intensive inspections were also conducted in the Salt River Valley to determine whether the noncotton zone had succeeded in eradicating the pest from that area. The remainder of the inspections, 3,399 were made outside of the regulated area. The principal areas covered by these inspections were in the western part of Arizona, California, the Lower Rio Grande Valley of Texas, and adjacent Mexico, and in the western border of cotton growing in Texas. No infestations were found outside the present regulated area.

Fifteen gin trash machines were operated as part of the scouting program. A total of 79,069 bushels of trash were examined and 69,701 specimens of the pink bollworm taken. Of this amount 11,613 bushels came from fields outside of the regulated area, mainly in the sections mentioned, under field inspections. No specimens of the pink bollworm were found in trash collected in the United States but 218 specimens were found in trash from the Juarez Valley of Mexico, an area already known to be infested. In the regulated areas 67,456 bushels were inspected and 69,483 specimens taken. The majority of these specimens were from the Big Bend area and the Lower El Paso Valley, both in Texas. In the Big Bend 59 bushels of trash were examined, from which 61,069 specimens were taken. These figures indicate that the infestation has become very heavy in this locality. In fact, considerable damage is being done which is readily seen and felt by the farmers. In some fields practically all of the late bolls are infested. Fortunately this area is a considerable distance from other cotton areas and is reached by only a few roads. The isolation of this area makes the enforcement of quarantine measures regulating the movement of cotton products from it comparatively easy. The areas found to be infested in the present crop, as a result of field and gin trash inspection, were given in the January news letter. The specimens found since that time do not involve any additional territory.

During January 700 samples, or 70,000 bolls, were inspected at the laboratory, with negative results. These samples were collected from fields in 30 Texas counties. In addition, 1,170 samples of cottonseed collected at various gins in the regulated area were examined. These samples were examined for the purpose of securing more information in regard to present infestations.

Specimens of the pink bollworm were found in three interceptions of contraband material at road stations maintained on roads leading into the Big Bend area. On January 21, D. H. Hunter, at the Valentine station, found four locks of cotton in a wagon sheet. Two dead larvae were found in this cotton. H. J. Henderson intercepted eight pounds of seed cotton at the Alpine station on January 23, in which 3 living and 23 dead larvae were found. Approximately one-fourth pound of seed cotton was taken from three pick sacks intercepted by H. E. Welker at the Fort Davis Station on January 28. This cotton contained 2 living and 1 dead larvae.

The eradication program in the Salt River and Gila Valleys of Arizona is progressing satisfactorily. It now appears that some 80,000 acres will be involved in the regulated area established by the recent State quarantine. Approximately one-third of this acreage is in the process of being cleaned, or had been completed at the end of January. On first thought this might seem to be rather slow progress. The farmers did not have the necessary finances to start the work immediately, and some time elapsed before this matter could be arranged. However, in several sections the work is from 50 to 75 per cent under way or completed. In other sections the work got a slow start due to the fact that the harvesting of the crop had not been completed. The work is now gaining momentum daily and the present outlook is encouraging.

An exhibit was presented by this project at the meetings of the Southern Plant Board and the Cotton States Branch of the American Association of Economic Entomologists held at Atlanta, Ga., on February 2 to 6. This exhibition consisted of a small model gin trash machine, which was effectively demonstrated, and a number of cases showing all stages of the pink bollworm and the damage it does. There were also photographs showing the various phases of our work. This exhibit attracted considerable attention and comment.

PREVENTING SPREAD OF MOTHS

The force of field workers employed in gipsy moth work in New Jersey was engaged during the first part of January in making an intensive examination of the trees and small growth in Duke's Park, Somerville, N. J., the site of the original large colony in that region. Owing to snowfall about the middle of the month which was followed by rain and freezing temperature, it was necessary to discontinue temporarily the examination of conifers in the Park as snow and ice made the examination of the dense foliage impracticable.

Several scouting crews began work about the middle of January in the Townships of Hillsboro and Bridgewater, N. J. These men are scouting along two small rivers from Pluckemin to Raritan and thence toward Somerville and Bound Brook. During the year these two small rivers overflow and the dead wood, brush, etc., is deposited along their banks. This makes scouting difficult and slow. Large river birches grow along these rivers and as the bark on these trees is heavy and rough, many of them have to be climbed in order to insure thorough inspection.

It is planned to complete the scouting work in low, swampy places in

the New Jersey area during cold weather while the streams and swamps are frozen. Later in the spring when these areas become flooded, it would be impossible to scout them and in case of infestation spread might occur by being carried on drifting materials.

Scouting work is being conducted in the area surrounding North Roslyn, Long Island, N. Y., by the Conservation Department of the State of New York. To date 159 egg clusters of the gipsy moth have been found at 34 points in this area since last summer, and thorough spraying at these locations will be required this summer. No egg clusters have been found in the village of North Roslyn, although a thorough examination of the village has been made.

All of the scouting work planned for the barrier zone area in Vermont for the current fiscal year has been completed with the exception of two towns. Deep snow in Vermont makes scouting work in that section impossible at this time.

All of the scouting crews, except those transferred to the New Jersey area, are working in the barrier zone in Massachusetts and Connecticut.