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B. E. P. Q. 499, Supplement No. 7

Effective September 18, 1942

TITLE 7--AGRICULTURE
CHAPTER III--BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
PART 301--DOMESTIC QUARANTINE NOTICES

JAPANESE BEETLE ADMINISTRATIVE INSTRUCTIONS MODIFIED

Introductory Note

Experiments with methyl bromide dissolved in water and applied to specified soil areas have resulted in the development of new methods for treating the soil of areas free from plants and of individual items of nursery stock in field rows. The application of this treatment in meeting the requirements of the Japanese beetle quarantine must be conducted under the supervision of an inspector of the Division of Japanese Beetle Control, 266 Glenwood Avenue, Bloomfield, N. J. and in accordance with detailed instructions furnished by him.

Pursuant to the authority conferred upon the Chief of the Bureau of Entomology and Plant Quarantine by §§ 301.48-6 and 301.48-7, Chapter III, Title 7, Code of Federal Regulations [regulations 6 and 7 of the rules and regulations supplemental to Notice of Quarantine No. 48], paragraphs (k) and (m) of §301.48b [circular B. E. P. Q. 499, issued June 9, 1939], as amended, are hereby further amended effective September 18, 1942, by the addition of the following subparagraphs:

§ 301.48b Administrative instructions to inspectors on the treatment of nursery products, fruits, vegetables, and soil, for the Japanese beetle

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TREATMENT OF SOIL IN ABSENCE OF PLANTS

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(k) SOIL IN AND AROUND COLDFRAMES, PLUNGING BEDS, AND HEELING-IN AREAS

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(6) Methyl bromide solution

(i) Season.--The treatment can be applied at any time when conditions are suitable between October 1 and May 15.

(ii) Equipment.--Equipment includes a gastight drum, complete with spigot and hose, methyl bromide applicator, collars when necessary, and measuring cans. Such equipment must be inspected, tested, and approved by an inspector of the Department before use.

(iii) Preparation of solution.--The solution must be prepared in accordance with the directions of the inspector.

(iv) Condition and type of soil.--Soil of any type may be treated provided the surface can be pulverized sufficiently to absorb the solution. To prepare a well pulverized surface, areas to be treated must be leveled and thereafter cultivated to loosen the soil to a depth of at least 1 inch. The treatment must not be applied during rain. The surface of wet soil should be tilled, allowed to dry for at least 24 hours, and then pulverized preparatory to treatment.

(v) Dosage and application.--The dosage shall be at the rate of 3 gallons of solution per 1 square yard. The strength of the solution shall be based on the minimum soil temperature within the top 6 inches as follows:

Minimum soil temperature in top 6 inches (°F.)	:	Percentage concentration by volume of methyl bromide
47 to 56, inclusive - - -	:	0.150
57 to 67, inclusive - - -	:	0.100
68, and over - - - - -	:	0.050

The surface must be divided by strings or marks in the soil into units of approximately 1 square yard. The solution is to be applied uniformly in a crisscross pattern to the soil surface from the spout of a sprinkling can or other vessel with a similar spout, held no more than 6 inches above the soil surface.

(vi) Safety zone.--In addition to the area desired to be certified, a strip 3 feet wide must be treated around the entire coldframe, plunging bed, or heeling-in ground. No plants will be certified from this strip. In the case of coldframes, etc. extending into the ground to a depth of 12 inches or more, no safety zone is required.

(vii) Marking.--In the case of coldframes, etc. having fixed boundaries, proper designations will be made on them by the inspector. In all other cases the nurserymen shall furnish suitable stakes, at least 4 inches square and 30 inches long, to be placed at the boundaries of the certified plots and marked by the inspector.

(viii) Period of treatment.--The area must remain undisturbed for a period of 48 hours after treatment.

(ix) Alternative treatment.--If 1-square-yard collars are used in treating frames, plunging beds, and heeling-in areas, the dosages and methods of procedure listed below for treatment of soil about the roots of plants may be used.

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	TREATMENT OF SOIL ABOUT THE ROOTS OF PLANTS				
	*	*	*	*	*
(m)	TREATMENT OF PLANTS BEFORE DIGGING				
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(3) Methyl bromide solution -- collar treatment

(i) Season.--The treatment can be applied at any time when conditions are suitable between October 1 and May 15.

(ii) Equipment.--The equipment required is the same as that under TREATMENT OF SOIL IN ABSENCE OF PLANTS (subparagraph (6) of paragraph (k)) except that collars are necessary.

(iii) Preparation of solution.--The required solution must be prepared in accordance with the directions of the inspector.

(iv) Dosage, solution, concentration, and soil temperatures.--The dosage is at the constant rate of 3 gallons per square yard. The percentage concentration of methyl bromide in solution, by volume, is dependent upon the minimum soil temperature within the top 6 inches, as follows:

Minimum soil temperature in top 6 inches (°F.)	:	Percentage concentration of methyl bromide
47 to 51, inclusive - -	:	0.100
52 to 56, inclusive - -	:	0.075
57 to 62, inclusive - -	:	0.050
63 to 67, inclusive - -	:	0.040
68 to 72, inclusive - -	:	0.025
73 and over - - - - -	:	0.015

(v) Condition and type of soil.--There are no limitations so long as there is no standing water on the area to be treated and all of the solution enters the soil within 30 minutes after application.

(vi) Preparation of collar areas.--The area must be free from weeds and debris and must be practically level. Leveling can be expedited by filling in and subsequent tamping to produce a uniformly packed subsurface for the application. The entire surface of the collar about the plant treated must be loosened to a depth of 1 inch. The collar should be set so that the solution will not break out beneath or through it.

(vii) Safety area.--The collar must be of sufficient size so that a safety margin of soil of at least 2 inches all around remains when the treated nursery stock unit is dug for balling.

(viii) Withdrawal and application of solution.--The solution is to be withdrawn from the preparation-drum through a hose extending to the bottom of the dosage-measuring vessel. It must be poured from the open top of the vessel onto the collar area quickly and without unnecessary splashing. Immediately thereafter the soil within the collar must be smoothed off without splashing so that the entire surface is uniformly submerged.

(ix) Use period.--If the drum is tightly sealed between dosage withdrawals the solution may be used at any time within 24 hours after preparation. While in storage between treatments within this period the drum must be shaded.



(x) Treatment period.--The plants must be dug not less than 20 hours or more than 48 hours after treatment.

(xi) Plant reactions.--The Department's records on plant reactions to the treatment are limited. Such information as is available will be supplied on request to the Division of Japanese Beetle Control. All interested nurserymen are advised to run test lots of their own stock for observation. So far as possible, the Department will cooperate in this testing on written request to the Division of Japanese Beetle Control, 266 Glenwood Avenue, Bloomfield, N. J.

(xii) Precautions.--Directions as to precautions may be obtained from the above Division and should be observed.

(7 CFR § 301.48; sec. 8, 39 Stat. 1165, 44 Stat. 250; 7 U.S.C. 161)

Done at Washington, this 14th day of September 1942.

P. N. ANNAND,
Chief