

DISINFECTION OF SEED AND FOOD POTATOES WITH METHYL BROMIDE AGAINST POTATO BLIGHT

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Abstract: The State Inspectorate for Plant Quarantine has carried out quarantine measures, including decontamination of seed and food potatoes, as well as methyl bromide, in order to localize and liquidate potato beetle kilns in the country, as well as to prevent its import by imported plant products and containers. increases.

Keywords: food safety, agROTOXICOLOGY, pesticide description, environment, economic efficiency

Fumigation of potatoes with methyl bromide in strict adherence to technology and procedures does not reduce its taste, commodity and seed qualities, and ensures the complete destruction of all stages of potato stalk between the tubers, on the surface of tubers and containers. Methyl bromide can be used to disinfect seed and food potatoes that meet the quality of commercial seed condition (sufficiently foamy skin, dry, not mechanically damaged, rotted, not frozen, without signs of disease, free of soil) after digging for at least 10 days. .

Seed potatoes are fumigated in the specified order (Table 1) in accordance with its generally accepted storage conditions, sowing period and sowing agronomic techniques. Fumigated food potatoes are placed under normal conditions and it is sold first.

that it is quickly realized on the spot. It is allowed to neutralize edible potatoes without spilling.

Placing the potatoes in the chamber is carried out like fresh fruit. The capacity of the carcass chamber made of rubber materials should be calculated for 1-2 wagons.

Potatoes are sterilized under conditions that exclude the possibility of freezing when fumigation and delivery to the place of use. When decontaminating potatoes obtained directly from potato storage warehouses, they are heated in the chamber to 10°C (in tubers).

The temperature in the tubs is gradually increased by 5°C overnight without allowing droplets of water to form on the surface of the tubers. When wet ends are present, they are removed or dried using a heater and fan. The temperature at the nodes directly before aeration is measured on three horizons (upper, middle and lower) near the heating source, as well as at a distance from it.

Table 1

Lethal norms of potato fumigation

Temperature at the nodes, 0°C	Methyl bromide dosage, g/m ³	Exposition (approximate), hours	Lethal norm, hour-grmm
10-14	55	4,0	130
15-18	50	3,5	110
19-22	45	3,0	100
23-26	40	3,0	90

Insufficiently porous, soft, in the tuber A fable (young) potato (especially freshly dug) with an insufficiently porous, soft, easily detached skin from the tuber is fumigated, provided



Figure 1.Preparation for fumigation

Depending on the minimum temperature in the nodes, the order of fumigation is determined for this batch based on the need to achieve lethal norms expressed in hour-grams according to the MPC (creation of the average minimum concentration in grams per cubic meter per hour of exposure time). The introduction of methyl bromide into the chamber and the control of its concentration is carried out in the same way as in the fumigation of fresh fruit.

Once the required hourly-gramm lethal standards have been reached, degassing of the chamber and potatoes begins. Suction fans are activated to degass the chamber and adapted buildings, and the doors are opened after 10 minutes.

In summer conditions, the degassing of the chamber is carried out for 2 hours with continuous operation of the fans, after which the residual amount of methyl bromide between the nodes is determined. If a fumigant is found, degassing is continued for 1 h with continuous operation of the fan, followed by a second determination of the completeness of degassing.

Potatoes in the chamber are fumigated in autumn or spring, their degassing is carried out for the first 6 hours with continuous use of the fan, and then the continuous degassing is continued for 2 hours with the chamber doors open. It is then degassed for 1 hour using a fan and the residual amount of fumigant vapors is determined between the ends. When they are present, the cells undergo additional active degassing until the fumigant is completely gone.

Once the fumigant vapors have been eliminated and the pests in the control nodes have been found to be completely killed, the potatoes are allowed to be loaded or sold on site on the instructions of the plant quarantine inspector.

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