Растителна защита
електронно списание за растителна защита
семена, торове и земеделие
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Pests of fruit crops in June

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In June, air temperature and humidity are suitable both for the growth of fruit crops and for the occurrence and development of economically important pests on them. During the month, the fruits of the fruit species increase rapidly in size and some of them ripen.

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Aphids on fruit crops (fam*. Aphididae)*

Aphids continue their harmful activity. Under severe infestation, the damaged leaves dry up and fall, the shoots become distorted and lag in their development, and the fruits remain small and deformed. Aphids cause not only direct damage to fruit species, but also transmit dangerous viral diseases.

Control: In the phenophase *"fruit growth"* treat when the **ETL (economic threshold level) is:**

Apples and pears: *colonies of Aphis spp - 10-15 per 100 shoots; colonies of Dysaphis spp. - 5 per 100 shoots.*

Peaches: *colonies - species of Myzus spp., Brachycaudus spp. - 5% infested shoots; colonies - species of Hyalopterus spp. - 15% infested shoots.*

Plums: *colonies - species of Hyalopterus spp., Phorodon - 15 per 100 twigs or 15% infested shoots; colonies - species of Brachycaudus spp. - 5 per 100 twigs or 5% infested shoots.*

The following plant protection products are authorised: a.i. tebufenpyrad - Shirudo 25 g/da; a.i. flonicamid - Tepeki 14 g/da, Afinto 14 g/da, Hinode 14 g/da; a.i. pyrethrins - Abanto 75 ml/da, Krisant EC 75 ml/da, Natur Breaker 75 ml/da, Pyregard 75 ml/da for apricots, peaches, plums and cherries; a.i. flupyradifurone - Sivanto Prime 90 ml/da for apples and pears; a.i. spirotetramat - Movento 100 SC 0.075-0.12% for apples and pears

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and 0.075-0.1% for apricots, peaches, plums and cherries; a.i. sulfoxaflor - Closer 120 SC 20-40 ml/da for apples, pears, quinces, peaches and cherries; a.i. azadirachtin - Oikos 100-150 ml/da, Neemik Ten 260-390 ml/da for apples.

Pome fruit species

Apple

Coddling moth (apple fruit moth)

In June, the caterpillars of the first generation are harmful. They bore into the fruits and feed on the seeds in the seed chamber. As a result of the damage, the fruits drop prematurely. One caterpillar damages 2-3 fruits. After completing its development, the caterpillar leaves the damaged fruit, descends on a silken thread and prepares a cocoon in which it pupates.

Control: Chemical treatment is carried out at the beginning of egg laying with insect growth regulators and against the caterpillars before they bore into the fruits.

Economic threshold level (ETL) - for the first generation**:** *0.8-1% fresh entries in the fruits.*

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Authorised plant protection products*:* a.i. spinetoram - Delegate 250 WG 30 g/da; a.i. chlorantraniliprole - Coragen 20 SC 16-30 g/da, Voliam 16-30 ml/da; a.i. cypermethrin - Cyperfor 100 EC 30 ml/da, Sherpa 100 EC 30 ml/da, Afikar 100 EC 30 ml/da, Efcymentrin 10 EC 30 ml/da; a.i. emamectin benzoate - Affirm Opti 200 g/da; a.i. spinosad - Sineis 480 SC 20-30 ml/100 l water; a.i. Granulovirus – CpGV-V22 3 x 10^{13} granules/litre - Madex Twin 10 ml/da;

Round leaf miner moth

In June, the second generation of the pest develops in the middle storeys of the tree crowns. The caterpillars feed on the parenchyma between the two epidermal layers and form mines.

Control: Chemical control is carried out at the beginning of caterpillar hatching.

ETL: in the phenophase *"fruit growth" - 2-3 eggs and mines per leaf.*

Authorised plant protection products: a.i. chlorantraniliprole - Coragen 20 SC 16-30 g/da, Voliam 16-30 ml/da; a.i. emamectin benzoate - Affirm Opti 200 g/da; a.i. cypermethrin - Cyperfor 100 EC 30 ml/da, Sherpa 100 EC 30 ml/da, Afikar 100 EC 30 ml/da, Efcymentrin 10 EC 30 ml/da, a.i. chlorantraniliprole 45 g/l + abamectin 18 g/l - Voliam Targo 063SC 75 ml/da and others.

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California red scale

In June, a massive increase in the larvae is observed. They, together with the adult females, suck sap from the branches, twigs, fruits and, less frequently, from the leaves. On the fruits, red, circular spots appear, with the scale of the insect visible in their centre.

Control: Control is directed against the larvae at an **ETL:** *10 per 100-cm twig or 2-3 infested fruits.*

Authorised plant protection products: a.i. sulfoxaflor - Closer 120 SC 40 ml/da.

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European red mite

For fruit crops, the European red mite is an economically important species. The larvae, nymphs and adults are harmful, sucking sap mainly from the underside of the leaves. As a result of the damage, the chlorophyll in the leaves decreases and they acquire a mosaic appearance.

Under heavy infestation, the chlorophyll content in the leaves decreases and transpiration increases, as a result of which the leaves dry up and fall prematurely.

Control: Chemical control*, in the phenophase "fruit growth"* is carried out at an **ETL:**

- Apple: *3-4 motile forms per leaf.*

- Pear*: 3-4 motile forms per leaf - at the beginning of fruit growth; 5-7 motile forms per leaf - after the beginning of fruit growth.*

- Peach *- 4-5 motile forms per leaf.*

- Plum - *3-5 motile forms per leaf.*

Authorised plant protection products: a.i. abamectin 18 g/l - Vertimec 018 EC 100 ml/da for apple; a.i. chlorantraniliprole 45 g/l + abamectin 18 g/l - Voliam Targo 063SC 75 ml/da; a.i. hexythiazox 31.2 g/l + fenpyroximate 62.4 g/l - Nissorun Plus 120 ml/da.

Stone fruit species

Plums

Plum fruit moth

In June, the moths of the first generation of the pest are in flight. The females lay their eggs on the young fruits. The caterpillars hatch one week after oviposition, bore into and feed on the fleshy part of the fruit, forming galleries directed towards the stalk. The damaged fruits stop growing, acquire a violet tint and fall together with the caterpillars.

Control: Chemical treatment is carried out at the beginning of egg laying with insect growth regulators and against the caterpillars before they bore into the fruits.

ETL for the first generation**:** *1-1.5% fresh entries in the fruits;*

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Authorised plant protection products: a.i. spinetoram - Delegate 250 WG 30 g/da; a.i. chlorantraniliprole - Coragen 20 SC 16-30 g/da, Voliam 16-30 ml/da; a.i. emamectin benzoate - Affirm Opti 250 g/da.

Peaches

Oriental fruit moth

In June, the moths of the second generation of the pest are in flight and lay eggs. The harmful stage is the caterpillar, which causes worminess of the fruits and mining of the shoot tips. The damaged shoots wilt and dry up, and gummosis is observed at the site of injury. This generation of caterpillars also damages the fleshy part of the fruits.

Control: Chemical treatment is carried out at the beginning of egg laying with insect growth regulators and against the caterpillars before they bore into the fruits.

ETL: during the vegetation period – *10-15 moths/trap/week;*

young orchards – *2-3% infested shoots by the caterpillar;* fruit-bearing orchards - *5% damaged shoots or 2-4% infested fruits by the caterpillar.*

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Authorised plant protection products: a.i. spinetoram - Delegate 250 WG 30 g/da; chlorantraniliprole - Coragen 20 SC 16-30 g/da, Voliam 16-30 ml/da; a.i. chlorantraniliprole 45 g/l + abamectin 18 g/l - Voliam Targo 063SC 75 ml/da; a.i. emamectin benzoate - Affirm Opti 200-225 g/da; Granulovirus – CpGV-V22 3 x 10^{13} granules/litre - Madex Twin 10 ml/da.

Peach twig borer

During the month, the caterpillars of the first generation of the pest are harmful. The damage to the shoots consists of tunnelling in their apical part, as a result of which they dry up. The caterpillars of this generation also attack the fruits, destroying the entire interior of the young fruitlets, while in the larger fruits they bore a short gallery in the fleshy part. One caterpillar damages 1-2 shoots and/or one fruit.

Control: When the **ETL** is reached: 3*% damaged shoots and fruits by the caterpillar*.

Authorised plant protection products: a.i. chlorantraniliprole - Coragen 20 SC 16-30 g/da, Voliam 16-30 ml/da; a.i. chlorantraniliprole 45 g/l + abamectin 18 g/l - Voliam Targo 063SC 75 ml/da; a.i. spinosad - Sineis 480 SC 20 ml/da.

Cherries

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Cherry fruit fly

In June, the flight of the fly continues. The females lay their eggs in the ripening fruits. The larva is harmful, feeding on the fleshy part of the fruit. The damaged fruits darken, rot and become depressed at the site of injury.

Control: Chemical control against cherry fruit fly is carried out *8-12 days after the beginning of the flight, at 10 female flies per trap (cumulative) at fruit colour break*;

a second treatment for medium-early and late cultivars - *8-10 days after the first, at 10 flies/trap.*. For monitoring, yellow sticky boards and “Rebell”-type traps can be used.

Authorised plant protection products: There are no registered insecticides; the following preparations may be used: a.i. cypermethrin - Cyperfor 100 EC 30 ml/da, Sherpa 100 EC 30 ml/da, Afikar 100 EC 30 ml/da, Efcymentrin 10 EC 30 ml/da; a.i. spinosad - Sineis 480 SC 20 ml/da.