

Care for the Seedlings in April

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Date: 14.04.2020 *Issue:* 4/2020



In the seedling section – Care for the seedlings (tomatoes, peppers, eggplants, cucumbers) continues.

I. Diseases

Brown leaf spots

Pathogen – *Alternaria* spp.

Symptoms/Damage

The leaf spots are dark brown to black with a concentric structure. The spots on the other above-ground parts are similar. Infestation of the flower stalks causes flower drop. The spots are covered with a dark coating of the fungal sporulation.

Life cycle

The fungus prefers old leaves that have completed their growth.

It develops under conditions of high relative humidity.

Control

- Maintaining an optimal temperature-humidity regime in the cultivation facilities;
- Regular ventilation of the facilities;
- Treatment with PPP upon appearance or in the presence of favourable conditions;
- Authorised products: Acrobat Plus WG 200 g/ha; Vitene Triplo R 400-450 g/ha; Dithane DG 200 g/ha; Dithane M-45 200 g/ha; Difcor 250 EC (valid until 21.12.2020) 50 ml/ha; Zoxis 250 SC 70-80 ml/ha; Captan 80 WG 150-190 g/ha; Karyal Star 60 ml/ha; Quadris 25 SC 0.075%; Ortiva Top SC 100 ml/ha; Pencozeb 80 WP 200 g/ha; Pencozeb 75 WG 210 g/ha; Polyram DF 0.2%; Ridomil Gold MZ 68 WG 0.25%; Sancozeb 80 WP – 200 g/ha; Score 250 EC (valid until 31.12.2020) 0.04%; Sinstar 70-80 ml/ha; Tazer 250 SC 80-100 ml/ha; Cidely Top 100 ml/ha.

Grey (Botrytis) rot of tomato

Pathogen – Botrytis cinerea

Symptoms/Damage

It attacks all above-ground parts of the plants. The spots are watery, and later scorch, becoming covered with abundant grey-brown mycelium and sporulation of the fungus.

Life cycle

The conidia of the fungus are disseminated by air currents and cause new infections. The fungus can also exist as a saprophyte in the soil.

Control

- Maintaining optimal air humidity in the seedling section. Regular ventilation;
- The infested plant parts are collected in bags and destroyed outside;
- Upon appearance of the first spots, treat with PPP;
- Authorised PPP: Difcor 250 SC (valid until 31.12.2020) 50 ml/ha; Captan 80 WG 150-190 g/ha; Prolectus 50 WG 80-120 g/ha; Signum WG 100-150 g/ha; Switch 62.5 WG 100 g/ha.

Powdery mildew on cucumber

Pathogen – Podosphaera xanthii, Erysiphe cichoracearum

Symptoms/Damage

Spots covered with a white powdery coating are observed on the upper and lower leaf surfaces, on petioles and stems.

Life cycle

Favourable conditions for development are: disturbed temperature-humidity regime; unbalanced nitrogen fertilisation; reduced light intensity.

Control

- Maintaining an optimal temperature-humidity regime;
- Treatment with PPP at the appearance of the first spots;
- Authorised products: Bayfidan 250 EC (01.12.2020 – grace period for sale and distribution) 0.02%; Vivando 20 ml/ha (0.02%); Domark 10 EC 50 ml/ha; Zoxis 250 EC 70 ml/ha; Indar 5 EW 100 ml/ha; Karamat 2.5 EW 200 ml/ha; Collis SC 40-50 ml/ha; Quadris 25 SC 0.075%; Custodia (valid until 31.08.2020) 50-100 ml/ha; Legado 80 ml/ha; Miklofil 20-60 ml/ha; Ortiva Top SC 100 ml/ha; Ritual 20-60 ml/ha; Sivar 80 ml/ha; Systhane 20 EW 37.5 ml/ha; Systhane Ecozome EW 65-165 ml/ha; Topaz 100 EC 35-50 ml/ha; Phytosev 200 ml/ha; Flint Max 75 WG 20 g/ha; Cidely Top 100 ml/ha.

II. Pests

Aphids

Cause – Fam. Aphididae

Symptoms/Damage

They cause chlorotic spots on the leaves and deformations;

They contaminate the leaf surface with „honeydew“;

Sooty mould fungi that develop on it contaminate the leaves and impede photosynthesis; they are vectors of viral diseases.

Life cycle

They develop on the apical young tissues and often form dense colonies. They have a high reproductive capacity.

Control

- The last treatment with PPP is carried out immediately before planting at the permanent site;
- Authorised aphicides: Closer 120 SC 20 ml/ha; Ampligo 150 ZC 40 ml/ha; Biscaya 240 OD 0.06%; Deka EC/Desha EC/Dena EC, Poleci, Decis (valid until 31.10.2020) 50 ml/ha; Deltagri 30-50 ml/ha; Decis 100 EC (valid until 31.10.2020) 7.5-17.5 ml/ha; Calypso 480 SC 0.02%; Confidor Energy OD 0.06%; Kohinor 200 SL 0.05%; Mavrik 2 F 0.02%; Masai WP 15-25 g/ha; Meteor 0.08-0.09%; Mospilan 20 SP 0.0125%; Mospilan 20 SG 25 g/ha; Nexide 015 CS 0.02%; Picador 20 SL 0.05%; Sivanto Prime 45 ml/ha; Skato 30-50 ml/ha; Sumi Alpha 5 EC/Sumicidin 5 EC/Oasis 5 EC 0.02%; Teppeki 10 g/ha; Fury 10 EC 15-20 ml/ha.

Greenhouse whitefly

Cause – Trialeurodes vaporariorum

Symptoms/Damage

During feeding, whiteflies excrete „honeydew”, as a result of which the leaves become sticky and sooty mould fungi develop on them, which hinder photosynthesis. In addition to direct damage, they transmit dangerous viruses.

Life cycle

They usually develop on the lower side of the leaves. There are 10-12 generations per year.

Control

- Upon appearance of the first individuals, treat with PPP;
- Authorised PPP: For tomato and cucumber: Admiral 10 EC 0.05%; Brai 50-112.5 ml/ha; Vaztak Nov 100 EC 0.03%; Deka EC/Desha EC/Dena EC, Poleici, Decis (valid until 31.10.2020) 50 ml/ha; Decis 2.5 EC (valid until 31.10.2020) 0.05%; Confidor Energy OD 0.08%; Krisant EC 75 ml/ha; Meteor 0.08-0.09%; Mospilan 20 SP 0.02%; Mospilan 20 SG 35-40 g/ha; Mulligan 25-95 ml/ha; Naturalis 75-100 ml/ha; Natur Breaker 75 ml/ha; Pyrethro Natura 75 ml/ha; Proximo 50-80 ml/ha; Sivanto Prime 56 ml/ha.
- Placement of yellow sticky traps.

Thrips: onion thrips and western flower thrips

Cause – Thrips tabaci; Frankliniella occidentalis

Symptoms/Damage

When attacking leaves, petioles, flowers and fruits, small whitish spots with dark dots are formed. The infested generative organs are deformed, dry out and drop off.

Life cycle

They develop at high temperatures and low air humidity;

The western flower thrips attacks mainly the flowers;

They transmit the tomato spotted wilt virus;

They develop several generations during the year, and under greenhouse conditions they reproduce continuously.

Control

- Upon appearance, immediately treat with PPP;
- Authorised PPP: Deka EC/Desha EC/Dena EC, Poleici, Decis (valid until 31.10.2020) 30 ml/ha; Dicarzol 10 SP 556 g/ha; Lamdex Extra 42-80 g/ha; Meteor – 0.06-0.07%; Naturalis (valid until 30.04.2020) – 75-100 ml/ha; Sineis 480 SC – 10-37.5 ml/ha; Fury 10 EC – 0.015%.
- Placement of blue sticky traps.

Tomato leafminer moth

Cause – Tuta absoluta

Symptoms/Damage

It makes short and wide mines in the leaves in which the larvae can be seen;

Secondary diseases develop on the damaged fruits.

Life cycle

The moths are active at night and hide during the day.

Under favourable conditions it can develop up to 10-12 generations.

Damage is caused by the larvae.

Control

- Upon detection of the first individuals, treatment with PPP is carried out.
- Authorised PPP: Avant 150 EC 25 ml/ha; Alverde 240 SC 100 ml/ha; Altacor 35 WG 8-12 g/ha; Ampligo 150 ZC 40 ml/ha; Affirm 095 SG 150 g/ha; Bermektin (valid until 30.04.2020) 50-100 ml/ha; Voliam Targo 063 SC 0.08%; Confidor Energy OD 80 ml/ha; Coragen 20 SC 14-20 ml/ha; Mospilan 20 SP 0.02%; Neem

Azal T/S 0.3%; Picador 20 SL 0.05%; Rapax SBS (valid until 30.04.3030) 100-200 ml/ha; Sineis 480 SC 10-25 ml/ha; Warrant 20 SL (valid until 31.07.2020) 50 g/ha.

- Placement of pheromone traps and black sticky plates.

Only PPP at the registered dose, included in the „List of plant protection products authorised for placing on the market and use“, published on the website of the BFSA, shall be applied.

PPP shall be purchased only from traders holding an authorisation for the activity and included in the list of companies authorised to carry out the activities of wholesale trade in plant protection products, retail trade in plant protection products in agricultural pharmacies, repackaging of plant protection products and fumigation and disinfection of areas, premises and plant production against pests, published on the website of the BFSA.