

# Pests and diseases

Fought pest – symptoms	Trade name	Concentration	Scope of application
<p><b>California Thrips</b> (<i>Frankliniella occidentalis</i>)</p> <p>deformed leaves, chlorotic wrinkles. Damaged inflorescences have twisted ligular flowers (petals).</p>	<p>Nitrogen Nocturne</p> <ul style="list-style-type: none"> <li>● Mesuroi 500 FS</li> <li>Kohinor 200 SL</li> <li>Mospilan 20 SP ●</li> <li>Biospin 120 SC</li> <li>● Apacz 50 WG</li> <li>● Dicarzol 10 SP</li> </ul> <p>Bulldock 025EC</p> <p>Naturalis</p>	<p>0.14%</p> <p>0.1-0.15%</p> <p>0.15%</p> <p>0.08%</p> <p>0.04%</p> <p>0.075%</p> <p>0.04%</p> <p>0.5%</p> <p>0.04%</p> <p>0.1-0.2%</p>	<p>When thrips are detected, spray the plants and substrate 4-5 times every 4-5 days. Add sugar to the preparation working liquid (100 g per 100 l of water) which attracts thrips. Blue helps to detect pests and yellow catch plates.</p>
<p><b>Spider mite</b> (<i>Tetranychus urticae</i>) – discoloration in the form of yellow-white spots on the upper side of the leaf. Infected leaves turn yellow. Yellow spiders on the background of a visible cobweb from below.</p>	<ul style="list-style-type: none"> <li>● Karate Zeon 050</li> <li>CS ● Nissorun</li> <li>050 EC</li> <li>Vertimec 018 WC</li> <li>● Envidor 240 SC</li> <li>Floramite 240 SC</li> <li>Sumo 10 EC</li> </ul>	<p>0.05%</p> <p>0.05%</p> <p>0.05%</p> <p>0.05%</p> <p>0.05%</p> <p>0.05%</p> <p>0.01%</p> <p>0.1%</p> <p>0.125-0.1</p> <p>5%</p> <p>0.25%</p> <p>0.125%</p> <p>0.1%</p> <p>0.1-0.2%</p>	<p>As soon as the pest is noticed, spray the plants 2-3 times every 7-10 days with the same preparation. Nissorun can be mixed with Karate or Talstar.</p>

	<p>Nealta • Kanemite 150 SC</p> <p>Ortus 05 SC</p> <p>Apollo Plus 060 OF</p> <p>Pyranica 20 WP • Magus 200 SC Naturalis</p>		
<p><b>Aphid</b> (Aphididae) – occurs mainly at the vertices shoots. Most often it inhabits the lower side of the leaf and the flower bud. It causes inhibition of growth, underdevelopment of the bud and deformation of the leaves.</p>	<p>Mospilan 20 SP • Sumi Alpha 0.50 EC • Teppeki 50 WG • Kohinor 200 SL</p> <p>Actara 25 WG</p> <p>Decis Mega 50 EW</p> <p>• Sivanto Prime 200 SL • Sequoia • Actelic 500 SC Closer Los Ovados 200SE</p> <p>Naturalis</p>	<p>0.04% 0.1% 0.015% 0.04% 0.02-0.04 % 0.025% 0.05-0.75 % 0.02-0.04 % 0.1% 0.02-0.05 % 0.05-0.1% 0.1-0.2%</p>	<p>Treat as soon as appears pest on the plant. Spray 2-3 times every 7-10 days. Add a humidifier to the preparation.</p>

<p><b>Miners</b> (<i>Liriomyza trifolii</i> L. sativae, <i>L. huidobrensis</i>) – initially round small spots on the leaves. The larvae feed inside leaves by eating the crumb, resulting in corridors the so-called mines.</p>	<ul style="list-style-type: none"> <li>● Fastac 100 EC ●</li> <li>Biospin 120 SC</li> <li>Vertimec 0.18 EC</li> </ul>	<p>0.02% 0.1-0.3% 0.05%</p>	<p>Once the pest is noticed, spray the plants regularly 4-5 times every 7 days. Yellow plaques placed above the plants are helpful in detecting the leaf miner.</p>
<p><b>Variants</b> (<i>Lygus</i> spp) – strongly deformed leaves and inflorescences</p>	<p>Nurella Max 515 EC</p> <p>Decis Mega 50 EW</p> <ul style="list-style-type: none"> <li>● Actelic 500 SC</li> <li>Bulldock 025EC</li> <li>Los Ovados</li> </ul>	<p>0.08% 0.025% 0.1% 0.04% 0.05-0.1% %</p>	<p>Spray the plants once a week in the hours of injured.</p>
<p><b>grubs and wireworms</b> – damage the root system as well as the plant stem.</p>	<p>Drusban 480 EC</p> <p>Klozer</p>	<p>0.1% 0.2%</p>	<p>Watering plants after planting.</p>
<p><b>Caterpillars, Markers and Butterflies</b> (<i>Lipidoptera</i>) larvae and caterpillars forage mainly at night. They bite large irregular holes inleaves or flower buds.</p>	<ul style="list-style-type: none"> <li>● Fastac 100 EC</li> <li>Affirm 0.95 SG</li> <li>Dolphin WG</li> <li>XenTari WG</li> </ul>	<p>0.02% 0.1% 0.075% 0.1%</p>	<p>Perform the treatment after noticing the feeding of caterpillars. The interval between treatments is 7 days.</p>
<p><b>Greenhouse whitefly</b> (<i>Trialeurodes vaporariorum</i>) – the larvae feed on the underside of the leaf, sucking the sap. Plants grow and bloom less.</p>	<ul style="list-style-type: none"> <li>● Sequoia</li> <li>Mospilan 20 SP</li> <li>Admiral 100 EC ●</li> <li>Apacz 50 WG ●</li> <li>Kohinor 200 SL ●</li> <li>Sivanto Prime</li> </ul>	<p>0.02% 0.04% 0.05-0.1% 0.04% 0.075% 0.1% 0.04%</p>	<p>After noticing the pest, spray the plants 2-3 times at 3 day intervals.</p>

	Nomolt 150 SC		
<b>Chrysanthemum Worm</b> ( <i>Aphelenchoides ritzemabosi</i> )	Vydate 10 G	1-2.5kg / 1000m <sup>2</sup>	The species of the nematode. They penetrate plant tissues causing necrosis, chlorosis, and mosaic leaves. Dieback of top flower and leaf buds. They inhibit the growth of the main shoot

### Disease Protection

<b>Rust</b> ( <i>Puccinia horiana</i> ) the disease appears with great intensity every few years. Regular light green spots on the lower and upper side of the leaf. From the underside of the leaf papilla with spores of the fungus.	Huva – San	0.1%	Spray the plants preventively every 14 days. Avoid high air humidity and high temperature. Keep the above-ground parts of the plants dry. Spray the plants 3-5 times every 7 days. After noticing the first symptoms, remove the leaves or infected plants. R water the rest of the plants with one of the above-mentioned preparations, 2-5 l per m <sup>2</sup> of substrate.
	50 TR Amistar	0.1%	
	250 SC	0.03%	
		0.05%	
	Discus 500	0.1%	
	WG	0.2%	
	• Falcon 460	0.0125%	
EC	0.025%		
Acanto 250			
SC			
Dithane Neo			
Tec 75 WG			
Flint Plus 64			
WG			

	Zato 50 WG		
<p><b>Gray mold</b> (<i>Botrytis cinerea</i>) on leaves, flowers and shoots brown spots. Infected buds turn brown and die.</p>	Huwa -San 50 TR	0.1%	<p>Avoid overgrown plants and high air humidity. Ventilate well and prevent nitrogen over-fertilization. When symptoms appear, spray the plants 1-2 times every 7 days.</p>
	Polyversum WP	0.05%	
	• Biosept 33 SL • Teldor 500 SC •	0.1%	
	Switch 62.5 WG	0.1%	
	Signum 33WG	0.1%	
	Banko 500 SC	0.2%	
	Point 62.5 WG	0.1%	
	Scala	0.1%	
		0.5%	
<p><b>Ascochytiopsis</b> (<i>Ascochyta chrysanthemi</i>) – brown spots on infected parts of plants. The leaves turn gray-brown or black in color. They wilt and dry on the plant at a later stage. Infested shoots die.</p>	Bank 500 SC	0.1%	<p>Avoid high plant density and wetting leaves. Do not grow plants in an area where the disease occurred the year before. Spray plants 3-4 times using fungicides alternately from other chemical groups.</p>
	• Topsin 500 SC	0.1%	
	Grevit 200 SL	0.1-0.2 % 0.1%	
		0.2-0.3 %	

	<ul style="list-style-type: none"> <li>● Switch 62.5 WG</li> </ul> <p>Dithane Neo Tec 75 WG</p>		
<p><b>Bacterial shoot wilt</b> of chrysanthemums (<i>Erwinia chrysanthemi</i>), plant growth is inhibited, infected shoots die. The disease progresses down the plant, causing the roots to turn brown and rot.</p>	<p>Miedzian 500 SC Biochikol 020 PC Grevit 200 SL</p>	<p>0.2% 0.5-1% 0.1-0.15%</p>	<p>Remove diseased plants from plantings, spray the rest. Use fresh or disinfected substrate for cultivation.</p>
<p><b>Verticillioza</b> (<i>Verticilium lubatrum</i>) bottom leaves change color to light green then yellow. In the period of the formation of flower buds, entire plants wilt and die. Conductive bundles turn brown on the cross-section and longitudinal section of the stems.</p>	<p>Huwa San 50 TR ● Topsin 500 SC</p>	<p>0.1% 0.1%</p>	<p>Plant plants in fresh medium or sanitized by evaporation. Remove sick plants and burn them, and spray the remaining plants twice every 7 days.</p>
<p><b>Rot rot</b> (<i>Pythium ultimum</i>) the tissues at the root turn vitreous green and then blacken. Parts of the plants die on older plants. Infected roots they do not take up water or mineral salts.</p>	<p>Bravo 500 SC ● Previcur Energy 840 SL Aliette 80 WP  Polyversum WP</p>	<p>0.15% 0.15% 0.2% 0.05%</p>	<p>Remove diseased plants after noticing symptoms and the rest of the plants should be sprayed or watered as much 2-5 l / m<sup>2</sup> The development of the disease is fostered by high humidity and temperature drop.</p>
<p><b>Powdery mildew</b> on leaves and On the petioles, numerous white mycelial blooms and sporulation patterns appear that cover the entire leaf blade. Infested leaves deform and plant growth is stunted .</p>	<p>Nimrod 250 EC Vivando</p>	<p>0.2% 0.03%</p>	<p>Fluctuations in temperature and humidity favor its occurrence. Frequent leaf wetting and nitrogen overfertilization worsen symptoms. After noticing disease symptoms, it is recommended to spray the</p>

			plants alternately every 7-10 days.
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Preparations marked with a flower were tested on flowering plants at a temperature of 20-21 ° C in a shaded object. After using them, we did not notice any damage to the plants. The Proteus and Decis preparations slightly burned the leaves.

<b>Concentration Conversion</b>				
0.01%	1g / 1ml	for 10 liters of water	10 ml / g	for 100 liters of water
0.02%	2g / 2ml	for 10 liters of water	20 ml / g	for 100 liters of water
0.05%	5g / 5ml	for 10 liters of water	50 ml / g	for 100 liters of water
0.075%	7.5g / 7.5ml	for 10 liters of water	75 ml / g	for 100 liters of water
0.1%	10g / 10ml	for 10 liters of water	100 ml / g	for 100 liters of water
0.15%	15g / 15ml	for 10 liters of water	150 ml / g	for 100 liters of water

0.2%	20g / 20ml	for 10 liters of water	200 ml / g	for 100 liters of water
0.3%	30g / 30ml	for 10 liters of water	300 ml / g	for 100 liters of water
0.5%	50g / 50ml	for 10 liters of water	500 ml / g	for 100 liters of water
1%	100g / 100ml	for 10 liters of water	1 yo	for 100 liters of water

**e.g. 0.04% = 4 g / 10 l of water, 40 g / 100 l of water, 400 g / 1000 l of water**