

Management:

- ✓ Use disease-free seeds.
- ✓ Destroy infected crop residues. After harvest plant debris should be collected and burnt.
- ✓ Treat seeds and soil with *Trichoderma viridae*.
- ✓ Treat seeds with Thiram@2 g/kg seed before sowing.

Leaf curl:

Leaf curl is a viral disease characterized by inward curling of leaves and stunted growth of the plants. Vector of this virus is white fly.

Management:

- ✓ Infested plants should be uprooted and burnt.
- ✓ Check white fly infestation using yellow sticky trap.



Mosaic:



Symptoms are variable but commonly include irregular leaf mottling (light and dark green or yellow patches or streaks). Veins may be lighter than normal or banded with dark green or yellow. Plants are often dwarfed with fewer than usual fruit and flowers, deformed and stunted. The disease causing viruses are spread by aphids and other insects, mites, fungi, nematodes and contact. Pollen and seeds also carry the infection as well.

Management:

- ✓ Rogue out the affected plant and destroy.
- ✓ Mosaic can be avoided by using virus-free seeds and plants and growing resistant varieties.

Zn deficiency:

Zinc deficiency is characterized by interveinal chlorosis of leaves, reduction in leaf size and rosetting.



Management:

Spray ZnSo₄ @2 gm/litre water.

Mites:

Red color mites are found at the lower side of the leaves that causes webbing and they feed from the leaf.



Management:

- ✓ Spray neem oil @5ml/l of water
- ✓ Spray Dimethoate (Rogor)@ 1ml/litre water.

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INSECT PEST AND DISEASES OF KING CHILLI



कृषि विज्ञान केन्द्र-फेक
राष्ट्रीय मिथुन अनुसन्धान केन्द्र
(भारतीय कृषि अनुसन्धान परिषद)

पोरबा, फुटजीरो, फेक, नागालैण्ड - ७६७१०७

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Introduction

The King Chilli is believed to be the origin of Nagaland and is a traditional food item of the local people. It is also found in Assam and Manipur, particularly in the hill areas and neighbouring Bangladesh. King chilli does not grow well in all areas and the pungency varies with the climatic conditions. Phek receipts very heavy downpour from April to October, so crops suffer to a great extent due to insect pest and diseases during this season. Different insect and pest that causes loss to the King chilli crop are as follows:

Aphids:

The adults suck cell sap and are mostly found at the lower surface of leaves. Severely infested areas become blackish in colour and withers.



- ✓ Spray neem oil @ 5ml/litre water
- ✓ Spray tobacco formulation. (Boil 1kg tobacco leaf powder + 5litre water till black colour develops. Cool it over night. Mix 100ml of the solution + 2 litre water for spraying in 50 sqm area).
- ✓ This solution is effective against all sucking type of insects or spray dimethoate (rogor) @ 1ml/litre water.



Thrips:

Adult and the nymphs suck cell sap of the leaves and stem resulting in discoloration. The plant shows stunted growth at severity.

Management:

- ✓ Cultural: Ploughing and harrowing before transplanting is useful in reducing thrips attack by killing pupae in the soil.
- ✓ Spray Malathion @ 3 ml/litre water at 15-20 days interval.

Root knot nematodes:

The nematode infects the root zone and produces tiny galls on the roots. The attacked plants show wilting and withering of leaves.

Management:

- ✓ Practice crop rotation
- ✓ Mixed cropping with African marigold minimize root knot damage.
- ✓ Soil fumigation with Nemagon effectively reduces the nematode population.

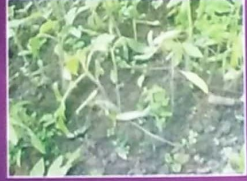


Damping off:

This disease occurs in almost all the crops in the nursery and in main field resulting into rotting of young stem at the base.

Management:

- ✓ Use BIOFOR-PF-2 as seedling treatment (1kg/1000 seedlings)
- ✓ Seeds should be treated with hot water at 50°C for ½ hr.
- ✓ Spray 1% Bordeaux mixture.
- ✓ Do not raise seedlings in the same site.
- ✓ Treat seeds with Captan @ 2g/kg of seed.
- ✓ Drench the seed beds with Captan solution @ 2g/litre of water.



Fusarium wilt:

Fusarium wilt starts out looking like vein clearing on the younger leaves and drooping of the older lower leaves, followed by stunting of the plant, yellowing of the lower leaves, defoliation, marginal necrosis and death of the plant



Management:

- ✓ Amend soils with organic matter (e.g. compost)
- ✓ Soil treatment with *Trichoderma viridae* helps in reducing wilt attack.
- ✓ Practice crop rotation.
- ✓ Treat 1kg seeds with Bavistin @ 2gm/litre.

Powdery mildew:

White powdery appears on the upper and lower surface of the leaves and with severity it turns black and the whole plant dies

Management :

- ✓ Spray Sulfex @ 2 gm/litre water
- ✓ Spray the crop with Karathane @ 0.5ml/litre water at 15 days interval.

Die back:

- This disease appears in 2 phases:
- Die back phase: Necrosis of tender twigs from the tip downwards. The entire plant or branch may wither away. The twigs become straw colored in advance stage of the disease.
 - Ripe rot phase: Small, black, circular spots appear on the skin of the fruit. The spots are sunken with black margin.

