

NORTH WEST DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT AGRICULTURAL SUPPORT SERVICES

Presentation title: Common diseases and pests affecting Vegetables

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Introduction

- Various diseases and pests attack vegetables, and this can lead to serious economic loss.
- Generally speaking, pest management strategies, chemical and mechanical control of pests and diseases can be used for control.



Pests affecting Vegetables

1. Beet armyworm *Spodoptera exigua*

➤ Symptoms

- Singular, or closely grouped circular to irregularly shaped holes in foliage; heavy feeding by young larvae leads to skeletonized leaves; shallow, dry wounds on fruit.
- egg clusters of 50-150 eggs may be present on the leaves; egg clusters are covered in a whitish scale which gives the cluster a cottony or fuzzy appearance.
- young larvae are pale green to yellow in color while older larvae are generally darker green with a dark and light line running along the side of their body and a pink or yellow underside. Insect can go through 3–5 generations a year.



2.Cabbage aphid *Brevicoryne brassicaea*

➤ Symptoms

- Large populations can cause stunted growth or even plant death; insects may be visible on the plant leaves and are small, grey-green in color and soft bodied and are covered with a white waxy coating; prefer to feed deep down in cabbage head and may be obscured by the leaves.
- Cabbage aphids feed only on cruciferous plants but may survive on related weed species.



3.Cabbage looper *Trichoplusiani*

➤ Symptoms

- Large or small holes in leaves; damage often extensive; caterpillars are pale green with a white lines running down either side of their body.
- Caterpillars are easily distinguished by the way they arch their body when moving; eggs are laid singly, usually on the lower leaf surface close to the leaf margin, and are white or pale green in colour.
- Cabbage looper can be identified by their characteristic "looping" movement in which they arch their body and bring the back portion of the body forward to meet the front.



4. Diamondback moth *Plutella xylostella*

➤ Symptoms

- Young larvae feed between upper and lower leaf surface and may be visible when they emerge from small holes on the underside of the leaf; older larvae leave large, irregularly shaped shotholes on leaf undersides, may leave the upper surface intact; larvae may drop from the plant on silk threads if the leaf is disturbed; larvae are small (1 cm/0.3 in) and tapered at both ends.
- Larvae have two prolegs at the rear end that are arranged in a distinctive V-shape. Larvae take between 10 and 14 days to mature and spin a loose, gauze-like cocoon on leaves or stems to pupate.



Organic Insects control

- Make or buy yellow sticky traps to catch aphids, white flies and other disease-carrying garden pests.
- Organic Neem oil is effective for some diseases, such as powdery mildew, but it also kills insects. So be careful to spray plants early in the morning or late in the evening when pollinating insects are not active.
- Intercropping will assist to control pests given that the pest will find fewer acceptable hosts to feed or lay eggs on in a more diverse field
- Organic methods of controlling the pests include biological control by natural enemies which parasitize the larvae and the application of *Bacillus thuringiensis*.
- larvae can be hand-picked from the plants, this is applicable when the population of larvae is low.

