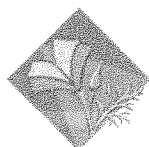


Broccoli and Brussels Sprouts Pests

o Problem	o Cause and Solutions
o Irregular holes in leaves; chewed leaves; small seedling plants destroyed	o Caterpillars (cabbage loopers, armyworms); snails, slugs
o <i>Bacillus thuringiensis</i> (Bt) is very effective	
o Small holes in leaves; chewed growing points in young plants. Loose cocoons about 1/3 long on leaves	o Diamondback moth; caterpillar
o <i>Bacillus thuringiensis</i> (Bt) is effective. Older plants not damaged. Destroy weeds before planting	
o Deformed curled leaves Colonies of gray-green insects on leaves. Sticky honeydew	o Aphids
o Use insecticidal soap spray. Control ants with sticky barrier or insecticide. Encourage beneficials. Use strong water spray to wash off.	
o Distorted leaves, turning plant brown. Wilted plants.	o Harlequin bug
o Insects suck fluid from tissue. Handpick bugs and egg masses. Remove old, non-productive Cole crops (wild radish & mustard) because they're alternate hosts.	
o Tunnels through roots. Plants fail to grow; may wilt, die. Feeding tunnels in germinating seedlings, which fail to produce plants.	o Cabbage maggot
o Prevent infestation. No practical control when maggots occur on growing crops.	
o Stunted, wilted plants. Yellowish leaves. Small glistening white specks on roots.	o Cyst nematode
o Rotate crops. Do not plant Cole crops on the same site year after year.	
o Wilted plants. Swollen, misshapen roots; roots rot. Plant dies in later stages.	o Clubroot
o Disease caused by a soilborne fungus. Common in acid soils. Add lime if pH is below 7.2. Rotate out of crucifer crops for at least 2 years.	
o Irregular yellowish areas on upper leaf surface; grayish powder on undersides.	o Downy mildew
o Improve air circulation. Plant resistant varieties. Tolerate disease.	
o Heads suddenly split	o Improper watering
o Do not allow soil to get too dry. If it gets too dry, apply water slowly at first.	
o Bolting	o Physiological disorder
o Plant at right time.	
o Heads soft and rotten	o Bacterial silt rot
o Rotate crops. Plant in well-drained soil.	
o Leaves riddled with shot holes.	o Flea beetles
o Control weeds.	



Cabbage Pests

o Problem	o Cause and Solutions
o Irregular holes in leaves; chewed leaves; small seedling plants destroyed	o Caterpillars (cabbage loopers, armyworms); snails, slugs
o <i>Bacillus thuringiensis</i> (Bt) is very effective	
o Small holes in leaves; chewed growing points in young plants. Loose cocoons about 1/3 long on leaves	o Diamondback moth; caterpillar
o <i>Bacillus thuringiensis</i> (Bt) is effective. Older plants not damaged. Destroy weeds before planting	
o Deformed curled leaves Colonies of gray-green insects on leaves. Sticky honeydew	o Aphids
o Use insecticidal soap spray. Control ants with sticky barrier or insecticide. Encourage beneficials. Use strong water spray to wash off.	
o Distorted leaves, turning plant brown. Wilted plants.	o Harlequin bug
o Insects suck fluid from tissue. Handpick bugs and egg masses. Remove old, non-productive Cole crops (wild radish & mustard) because they're alternate hosts.	
o Tunnels through roots. Plants fail to grow; may wilt, die. Feeding tunnels in germinating seedlings, which fail to produce plants.	o Cabbage maggot
o Prevent infestation. No practical control when maggots occur on growing crops.	
o Stunted, wilted plants. Yellowish leaves. Small glistening white specks on roots.	o Cyst nematode
o Rotate crops. Do not plant Cole crops on the same site year after year.	
o Wilted plants. Swollen, misshapen roots; roots rot. Plant dies in later stages.	o Clubroot
o Disease caused by a soilborne fungus. Common in acid soils. Add lime if pH is below 7.2. Rotate out of crucifer crops for at least 2 years.	
o Irregular yellowish areas on upper leaf surface; grayish powder on undersides.	o Downy mildew
o Improve air circulation. Plant resistant varieties. Tolerate disease.	
o Heads suddenly split	o Improper watering
o Do not allow soil to get too dry. If it gets too dry, apply water slowly at first.	
o Bolting	o Physiological disorder
o Plant at right time.	
o Heads soft and rotten	o Bacterial soft rot
o Rotate crops. Plant in well-drained soil.	
o Leaves riddled with shot holes.	o Flea beetles
o Control weeds. Use rotenone with insecticidal soap.	
o Poor heading	o Overcrowding; dry soil; root rot
o Thin plants early. Irrigate properly. Rotate crops, remove old plant debris	
o Stunted yellow plants	o Poor fertility; dry soil; <i>Fusarium</i> fungus.
o Test soil. Irrigate properly. Use resistant varieties	



Cauliflower Pests

Problem	Cause and Solutions
Irregular holes in leaves; chewed leaves; small seedling plants destroyed	Caterpillars (cabbage loopers, armyworms); snails, slugs
<i>Bacillus thuringiensis</i> (Bt) is very effective	
Small holes in leaves; chewed growing points in young plants. Loose cocoons about 1/3 long on leaves	Diamondback moth; caterpillar
<i>Bacillus thuringiensis</i> (Bt) is effective. Older plants not damaged. Destroy weeds before planting	
Deformed curled leaves Colonies of gray-green insects on leaves. Sticky honeydew	Aphids
Use insecticidal soap spray. Control ants with sticky barrier or insecticide. Encourage beneficials. Use strong water spray to wash off.	
Distorted leaves, turning plant brown. Wilted plants.	Harlequin bug
Insects suck fluid from tissue. Handpick bugs and egg masses. Remove old, non-productive Cole crops (wild radish & mustard) because they're alternate hosts.	
Tunnels through roots. Plants fail to grow; may wilt, die. Feeding tunnels in germinating seedlings, which fail to produce plants.	Cabbage maggot
Prevent infestation. No practical control when maggots occur on growing crops.	
Stunted, wilted plants. Yellowish leaves. Small glistening white specks on roots.	Cyst nematode
Rotate crops. Do not plant Cole crops on the same site year after year.	
Wilted plants. Swollen, misshapen roots; roots rot. Plant dies in later stages.	Clubroot
Disease caused by a soilborne fungus. Common in acid soils. Add lime if pH is below 7.2. Rotate out of crucifer crops for at least 2 years.	
Irregular yellowish areas on upper leaf surface; grayish powder on undersides.	Downy mildew
Improve air circulation. Plant resistant varieties. Tolerate disease.	
Leaves riddled with shot holes.	Flea beetles
Control weeds. Use rotenone with insecticidal soap.	
Poor heading	Overcrowding; dry soil; root rot
Thin plants early. Irrigate properly. Rotate crops, remove old plant debris	
Heads yellow or brown instead of white	Sunburn
When head is 3 inches in diameter, tie the outer leaves around the head with twine. Harvest in 4-7 days.	

