

Rutgers Cooperative Extension

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COLE CROPS IPM FIELD GUIDE FOR NEW JERSEY

Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Collards, Kale

Sampling Method: 10 samples per field, random area. Sample 5 consecutive plants for a total of 50 plants.

Heading type: Broccoli, Cabbage, and Cauliflower

Check for:

- Look at upper and lower leaf surface of any leaf showing caterpillar-feeding injury. Check the innermost leaves for the presence of caterpillars.
- Observe the presence or absence of flea beetles from an upright position so as not to disturb these pests.
- Inspect the overall plant for wilting (possible maggot infestation), the presence of aphids, pale blotches on leaves (harlequin bug feeding), alternaria and bacterial diseases.
- Check the lower leaf surface for the presence of downy mildew sporulation of any leaf having yellow lesions on the upper surface.

Stage: 0-4 true leaves

PEST	THRESHOLD
Flea beetle	Flea beetles present, damage on \geq 50% of plants
Caterpillar pests	\geq 10% of plants infested
Harlequin bugs	\geq 5% of plants infested
Cabbage aphids	\geq 10% of plants infested
All diseases	Presence

Stage: 4 leaves – head fill

PEST	THRESHOLD
Flea beetle	\geq 50% plants with flea beetles
Caterpillar pests	\geq 20% plants infested
Harlequin bugs	\geq 10% of plants infested
Cabbage aphids	\geq 10% of plants infested
All diseases	Presence

Stage: mature head

PEST	THRESHOLD
Flea beetle	\geq 50% of plants
Caterpillar pests	\geq 5% of plants infested
Harlequin bugs	\geq 5% of plants infested
Cabbage aphids	\geq 5% of plants infested
All diseases	Presence

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Leafy type: Brussels sprouts, Collards, and Kale

Check for:

- Look at upper and lower leaf surface of any leaf showing caterpillar-feeding injury. Check the innermost leaves for the presence of caterpillars.
- Observe the presence or absence of flea beetles from an upright position so as not to disturb these pests.
- Inspect the overall plant for wilting (possible maggot infestation), the presence of aphids, pale blotches on leaves (harlequin bug feeding), alternaria and bacterial diseases.
- Be sure to check several sprouts as they develop on the side of Brussels sprout stalks for these as well.
- Check the lower leaf surface for the presence of downy mildew sporulation of any leaf having yellow lesions on the upper surface.

Stage: 0-4 true leaves

PEST	THRESHOLD
Flea beetle	Flea beetles present, damage on \geq 50% of plants
Caterpillar pests	\geq 10% of plants infested
All diseases	Presence

Stage: 4 leaves to harvest

PEST	THRESHOLD
Flea beetle	\geq 50% plants with flea beetles
Caterpillar pests	\geq 20% plants infested
All diseases	Presence