



Bean Leaf Beetle

Pest Facts and Impact on Crop

- Latin name is *Ceratoma trifurcata*
- Although the larvae feed on soybean roots, most damage occurs from adult feeding on foliage or pods
- Found east of the Rocky Mountains, wherever soybeans are grown
- No significant natural enemies are known
- Hosts: alfalfa, clover, green beans, wild legumes such as tick trefoil
- Generations per year
 - 3 – Southeast United States
 - 2 – Iowa and Illinois
 - 1 to 2 – Wisconsin
 - 1 – Canada
- Adults overwinter in woodlots and fence rows
- Quickly killed if exposed to temps below 14° F
- Adults may feed on alfalfa in spring before soybeans emerge



Crop Symptoms

- Impact from larvae is unknown, but thought to be insignificant
- Leaf feeding from adults causes little impact unless defoliation exceeds 25 percent
- Pod feeding results in greatest damage and affects both quality and yield
- Adults also transmit bean pod mottle virus, which:
 - Reduces soybean yield
 - Reduces soybean quality
 - Causes green stem and delays harvest

Crop Symptom Pictures



Pest ID

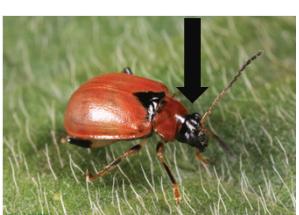
Adult:

Bean leaf beetle adults



Larvae:

- Found in soil near roots and resemble corn rootworm larvae
- Body color is white and head color is dark brown/black
- Often found feeding in nodule



Management Considerations

Resistance

- Neither native nor transgenic resistance are currently available for bean leaf beetle

Beneficial insects (natural enemies)

- Very little impact documented
- Not a recognized deterrent to beetle populations

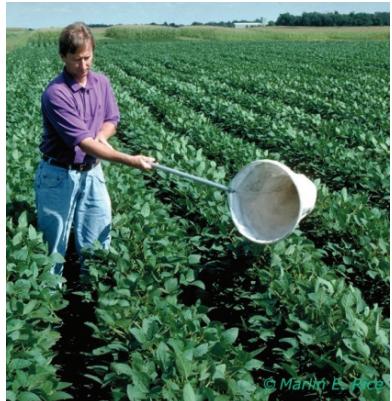
Planting

- If the field has a history of bean leaf beetle injury or bean pod mottle/green stem, consider planting slightly later after most bean leaf beetle adults have moved away from the area
- Pioneer Premium Seed Treatment with insecticide may help reduce damage from overwintering BLB; effect may vary on bean pod mottle infection prevention



Scouting Practices

- Early pod fill stages: R1-R3 – If defoliation approaches 20 to 25 percent and large numbers of BLB adults are present, consider insecticide application, especially if beetles exceed 20 per 20 sweeps of a sweep net
- Decision should be based on increasing or decreasing beetle numbers, costs of control and grain price of soybeans
- Late pod fill stages: R5-R7 – If pod injury is above 10 percent and beetles exceed 3 per sweep, consider insecticide application, especially if other pod feeding insects (grasshoppers) are present
 - Value of control will depend on continuing injury and pod maturity



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May



Overwintering as an adult in protected areas



June

Adults lay eggs in soil of early planted soybean fields and larvae feed on roots



Emerged adults feed on leaves, mate and lay eggs in soil



One life cycle in Canada; three in southeast United States

Aug/Sept

July/Aug

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Components under the Pioneer Premium Seed Treatment offering for soybeans are applied at a DuPont Pioneer production facility or by an independent sales representative of Pioneer. Not all sales representatives offer treatment services, and costs and other charges may vary. See your Pioneer sales representative for details. Seed treatment offering exclusive to DuPont Pioneer and its affiliates.