

Assassin Bugs, Ambush Bugs

Assassin bugs are a well-named group of insects that develop by preying upon other insects. Three species of assassin bugs have been found in Colorado hemp.

Most common is the **spined assassin bug** (*Sinea diadema*). Adults are about 1/2-inch long, making them about the largest of the insect predator one may find in Colorado hemp crops. They feed using piercing-sucking mouthparts, which appear as a “beak” curved along the underside of its head and they can feed on wide variety of insects. Spined assassin bug has been reported to favor as prey small bugs (e.g., Lygus bugs) and beetles. This assassin bug likely will also feed on the various caterpillars found on the crop, such as corn earworm, zebra caterpillar, and yellowstriped armyworm.

Winter is spent as eggs, laid in the form of masses glued to plants. The first generation likely develops in off-field sites feeding on insects developing in weedy patches, fields, trees, and shrubs. Migration into hemp by adults that originating from these areas can later occur in early summer. The second, midsummer generation may develop in a wide variety of annual crops, including hemp.

The other assassin bug that occurs widely in hemp, but is never common, is *Zelus tetracanthus*, sometimes called the “four-spurred assassin bug”. It is about the same



Top to Bottom: Adult, late stage nymph and egg mass of the spined assassin bug.



Adult of the assassin bug *Zelus tetracanthus*

Hemiptera: Reduviidae

length as the spined assassin bug, but longer-bodied and darker. Adults only of this insect have been found in hemp so it may not reproduce in the crop.

Late in the season, in hemp that produces flowers, the **ambush bug** (*Phymata americanum*) may be present. Adults of these assassin bugs will rest near developing flowers and capture insects that visit the plant to collect pollen, including bees. Ambush bugs do not reproduce within the crop, no eggs or nymphs are present.



Adult of an ambush bug (top). Ambush bug feeding on a honey bee.