

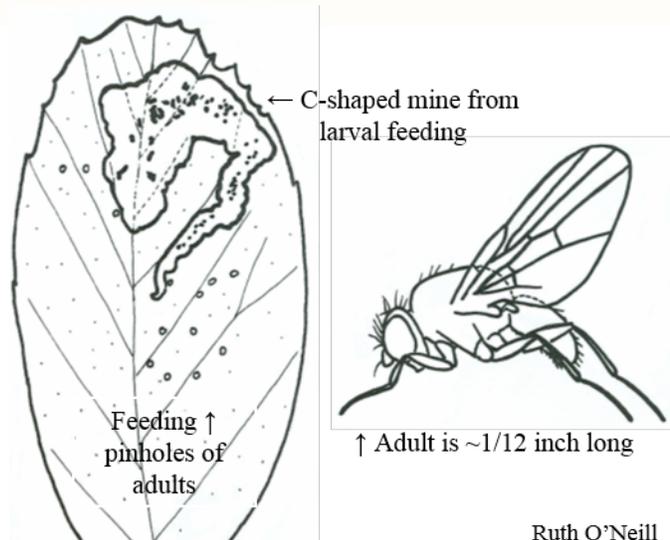
Alfalfa blotch leafminer *Agromyza frontella* discovered in Lewis and Clark County, MT – a pest to watch for in 2018.

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Damage from alfalfa blotch leafminers, a type of fly, has been identified from an alfalfa forage field in Lewis and Clark County. This appears to be the first report of this species in Montana.

The producer estimates that this field sustained 15% yield loss over the 2017 growing season, spread out over three cuttings. Several nearby alfalfa fields were also affected. In addition to leaf drop, severe infestation by alfalfa blotch leafminer causes protein loss.

Alfalfa blotch leafminer is a European pest that was accidentally introduced to eastern North America in the late 1960s, and has spread westward through the northern U.S. and the prairie provinces of Canada. There are probably three generations per year - perhaps four - at this latitude.



Alfalfa blotch leafminer has been present in Wisconsin and Minnesota since the late 1990s and Alberta since 2005, and is now common in those areas. After the initial outbreak in Alberta, the population stabilized at a much lower level and is not considered an economic issue in either forage or seed production. The same pattern was observed in Minnesota. Population stabilization is likely due to the activity of parasitoid wasps.

DAMAGE: The larvae are the damaging stage. The small, yellow maggots feed inside the leaves, creating mines that are C-shaped or question-mark-shaped. Larvae likely hatch in early June in Montana.

The first adults probably emerge in mid- to late-May at our latitude, feed on foliage, and oviposit on the leaves. Adults cause minor foliage damage, making small pinholes in the leaves. This damage is non-economical, but because it is easy to spot it does provide an important target for early spring scouting. The adults themselves are difficult to see. They are small (~1/12-in), dull-black, hump-backed flies with white knobs (halteres) behind the wings.

SCOUTING: Next spring, scout for adult feeding pinholes in May - early June. The larval blotch mines will appear a few weeks later.

CONTROL: An early first cutting next May or June may reduce damage throughout the growing season. Unfortunately, there has been poor success controlling the larvae within the leaf mines with insecticides. Targeting the first generation of adults in the spring with contact sprays may be effective. For more information on life cycle, and on potential control of the adult stage, see this 2017 online extension fact sheet: https://wiki.bugwood.org/HPIPm:Alfalfa_Blotch_Leafminer



Heavy damage from an alfalfa field in Lewis and Clark County



Adult feeding pinholes (left); two larval mines on the same leaf (right)