

Leafhoppers

Leafhoppers are small insects (1/8-1/6 inch) that have an elongate body. The adults, which are winged, readily jump and fly from plants when disturbed. Immature stages (nymphs) are wingless but can quite actively crawl on plants.

The leafhoppers associated with hemp are poorly studied at present but adults of about a half dozen species have been collected in sweep net samples. Most regularly found is *Aceratagallia uhleri*, which also can reproduce on the plant (Fig 1,2). No visible plant injury has ever been observed by this leafhopper. Another leafhopper, a small light green species tentatively identified in the genus *Empoasca*, also reproduces on the crop. This leafhopper may produce a small flecking wound on the foliage (Fig. 3,4).

Other leafhoppers are less frequently collected (Fig. 5-7) Samples of most have only contained adult stages, suggesting that they may be transients in the crop that do not reproduce on hemp.

Leafhoppers feed on leaves and stems with piercing sucking mouthparts that extract a bit of fluid from the plant. Most feed on the phloem of plants, resulting in insignificant effects on plant growth and produce no visible symptoms. A few leafhoppers, such as the *Empoasca* species, feed on the mesophyll and a small, light flecking injury may occur at the feeding site. And although some leafhoppers are known to transmit plant pathogens that cause diseases of crops (e.g., aster leafhopper and the phytoplasma that produces aster yellows) none of these leafhopper-vectored plant diseases are presently known to affect hemp. In summary, it is unlikely that leafhoppers will be a significant pest of the crop under any circumstances.

Hemiptera: Cicadellidae



Figures 1, 2. Adult (top) and nymph (bottom) of *Aceratagallia uhleri*, the most common leafhopper found in hemp in eastern Colorado and a species that can reproduce on the crop. No plant injury has been observed by this insect.



Figures 3, 4. A leafhopper, tentatively identified as an *Empoasca* species, is common in sweep net collections of hemp grown in eastern Colorado (top). It is suspected that this leafhopper can produce small white flecking injuries to hemp leaves (bottom).



Figures 5-7. Adults (top, middle) and nymph (bottom) of leafhoppers collected on hemp.