

# TIMELY INFORMATION

## Agriculture & Natural Resources

### The Redheaded Flea Beetle: A “New” Pest in Nursery Production

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Recently, a “new” beetle pest in nursery production, the redheaded flea beetle *Systema frontalis* (Fabricius), has been reported in nursery crops in Alabama, (figures 1 and 2).



Figure 1. Redheaded Flea Beetles next to penny for size.



Figure 2. 10x magnified view of redheaded flea beetle (note enlarged femur, typical of flea beetles and reddish head)

Charles Ray, Auburn insect diagnostician, had three samples submitted in 2009, where this beetle causing damage on hollies. In addition to hollies, it has also been reported damaging container grown azaleas and loropetalum. In azaleas, the beetles have been found feeding in developing vegetative buds. As these buds expand the damaged leaves are deeply notched (figures 3)



Figure 3. Deeply notched azalea leaves damaged by the redheaded flea beetle while feeding in the growing tip rather than the small feeding holes (figure 4) one would expect to be produced by a small beetle.



Figure 4. Holes in azalea leaves caused by redheaded flea beetle feeding.

The damage on the holly was more typical of a small beetle, that is, small holes and skeletonized leaves (Figures 5 and 6).



Figure 5. Feeding damage on holly caused by the redheaded flea beetle.



Figure 6. Close-up of feeding damage on holly by redheaded flea beetle.

The red-headed flea beetle has been reported as a pest of several fruits and vegetables including: cabbage, bean, beet, corn potato as well as the ornamentals: forsythia, dogwood and now evergreen azaleas, hollies (at least *I. crenata*) and loropetalum. In corn, it vectors maize chlorotic mottle virus which, in combination with another virus, causes corn lethal necrosis. Immature beetles develop in soil or perhaps potting media and feed on organic matter such as root material and perhaps organic potting media components. They probably don't significantly damage nursery plant roots. The beetles can be difficult to find on damaged plants. To find them, vigorously shake plants and brush foliage over a white ground cloth, a beating stick and sweep net can also be used.

Insecticide recommendations from cranberries suggest that any broad spectrum insecticide will control this beetle. Look for insecticides that are labeled for nurseries and include beetles or weevils on their labels.