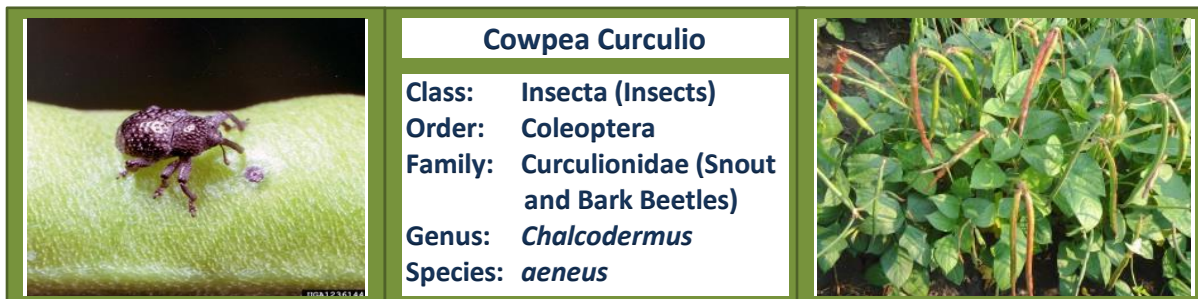


Bug of the Month

by Jim Revell / April 2017

Cowpea Curculio

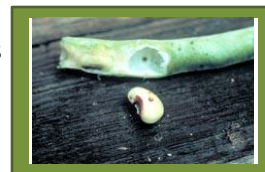


At left, adult Cowpea Curculio and damage (Clemson.edu) and right, Purple Hull Pinkeye Cowpeas (iastate.edu)

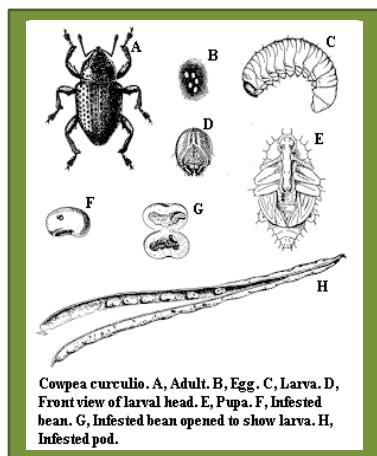
In this month's issue of the *Virginia Gardener* magazine, there is an article by Blake Layton entitled "No-Good Nine." The article covers nine pests found in our vegetable gardens. What caught my eye was the piece about the Cowpea Curculio (*Chalcodermus aeneus*).

If you're not familiar with Cowpeas, they are an annual legume, also known as Southern Peas, Blackeye Peas, Crowder Peas, Lubia, Niebe, Coupe or Frijole! Originally from Africa, they are now grown in Africa, Latin America, Southeast Asia and southern United States.

As many of you know, I grew up in Florida. I remember visiting my aunt and uncle in a little "hole-in-the-road" town called Pinetta (near Madison, not far from I-75 and the FL/GA line). Two of my favorite side dishes for dinner, at the time, were Blackeye Peas and cornbread – for people in the South, often considered a staple at meal time. Sherry and I have grown cowpeas for years and, when shelling them, have noticed at times a few peas that had blemishes (see UGA Ext. photo at right), but to inspect every pea - - well, just not practical and, if infested, a little extra protein isn't a bad thing!



The Cowpea Curculio is a small gray weevil (only 4.8-5.5mm in length) and is considered one of the most damaging insects to Cowpeas. Adults are



shiny and have deeply pitted elytra and a coarsely punctate thorax (studded with tiny holes). They overwinter, emerging in mid-to-late Spring. From egg to adult is about 30-40 days. The female chews into the pod, laying her eggs into the seed through the pod wall. These eggs hatch into legless grubs and, at about the 4th instar stage, reach a length of about 7mm. They eat their way out of the pod and fall to the ground; here, they burrow 1-3 inches into the soil and create a pupal cell. They pupate and emerge as an adult in 5-19 days. The second-generation adults mate and begin laying eggs in the same planting or subsequent cowpea plantings.

Cowpea Curculio infest field peas, string beans, soybeans, lima beans, cotton and strawberries, but most commonly attacked are blackeye peas/crowder peas.

CONTROLS: (1) Crop rotation and sanitation can help; (2) periods of hot, dry weather can reduce damage; (3) in commercial production, traps and/or chemical controls are needed; (4) insecticide is applied when blooms first appear, then repeated at 5-day intervals as needed (timing is a key to killing the female before she lays eggs); the most effective pesticides are pyrethroids (i.e., bifenthrin); carbaryl (Sevin) is also effective. A major note: Be aware of pollinators if you're spraying - - blooming peas attract a large number of pollinators and predators (like the Paper Wasp). If a pesticide is needed, spray after sunset, and **always read the label.**

Photo References:

Cowpea Curculio adult / damage; photo 01/05/2017; http://www.clemson.edu/extension/hgic/graphics/2201/cowpea_curculio.jpg

Cowpeas / Purple Hull Pinkeye; <https://www.cals.iastate.edu/sites/default/files/resize/features/content/89043/cowpeas-copy-2-300x225.jpg>

Cowpea Curculio damage; Dr. David Adams, UGA Ext. Entomologist; http://www.bugwood.org/factsheets/images/cowpea_curculio_fig1-da.jpg
Cowpea Curculio life cycle diagram; http://ipm.ncsu.edu/AG295/pics/cowpea_curculio.gif

Research References / Resources:

“No-Good Nine” by Blake Layton, *Virginia Gardener* April 2017 | <http://bugguide.net/node/view/471500?printable=1> | UGA Extension,
“Cowpea Curculio in Southern Pea” by Riley, Sparks and Kicklighter; http://extension.uga.edu/publications/files/pdf/C%201038_1.PDF |
http://ipm.ncsu.edu/AG295/html/cowpea_curculio.htm | “Cowpea” by Davis, Oelke, Oplinger, Doll, Hanson and Putnam;
<https://www.hort.purdue.edu/newcrop/afcm/cowpea.html>

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Read more of his articles on the “Jims Bugs” page @ www.BedfordMasterGardeners.org