

September 1, 2014

Cover Crop Herbicide Programs – Jim Hoorman, Putnam County Extension

Several farmers have commented that their early seeded cover crop stands that were broadcast or aerial seeded often look worse than crop crops that were seeded four to six weeks later. The cover crop seeds appear to germinate, and then the stands get weak, and in some cases disappear. If the field has had adequate rain or moisture, herbicide carryover may be an issue. There are several corn and soybean herbicides that have longer residual activity that may be detrimental to fall seeded cover crops.

When planning your herbicide program, make sure you consider what crop or cover crop will follow your spring seeding. Consult your herbicide label, however; many labels do not have much information on specific cover crops species. One place to start is to look at the half-life of the herbicide or how long it takes on average for that herbicide to degrade in the soil. Environmental factors like rain and drought, humidity, sunlight and other factors can change the time it takes for a herbicide to degrade. In general, most herbicides degrade faster under warm and moisture conditions if soil microbes are involved in the chemical degradation.

For corn herbicides, the triazines (Atrazine and Simazine or Princep) can be a major problem if applied at high rates. The half-life is 60 days with activity out to 120 days. If applied May 1st, these herbicides may affect cover crops seeded September 1st or even later, especially if dry weather occurs. Crops that are most affected include cereals, ryegrass, legumes (includes most clovers), and mustards (radish, rape, kale), which includes almost all of our cover crops. Atrazine and Simazine are more persistent in high pH soils (>7.0). Rates less than 1 pound per acre active ingredient allow more flexibility.

Other corn herbicides that can cause problems include Balance Pro 4L, Capreno 3.45SC, and Corvus 2.63SC with a half-life of 50-120 days. With Capreno and Corvus herbicides, most grasses like cereal rye, ryegrass, and fall planted cereal grains (wheat) are generally safe to plant, however; legumes and mustards may be harmed. For Balance Pro, only fall cereal grains are labeled for fall planting. These three herbicides need 15 inches of cumulative precipitation from spring planting until the next crop to degrade. Stinger, Hornet and Surestart (40 days) are also deadly to legumes with a 10 to 18 month re-crop interval needed before they can be planted. Read the herbicide label for more details and restrictions for all herbicides.

Farmers should be wary of post-emergent herbicides that are sprayed late in the growing season. Peak 57WG and Spirit have a half-life of 9-152 days. Small seeded legumes and mustards are the most at risk along with high pH soils (>7.0). Another corn herbicide, 2-4D has a 30 waiting period before planting sensitive broadleaves (mustards and legumes). The later herbicides are sprayed, the greater the chance that they will have an effect on the following crop.

Soybean herbicides can also be a major concern. Authority or Spartan (half-life 32-302 days) is a major concern for small seeded legumes, mustards, and sorghum but NOT for cereals and ryegrass. Scepter and Pursuit have 60-90 day half-lives and are a major concern, especially

during dry periods for all legumes and mustards. Reflex (100 day half-life) and Classic (chlorimuron, 40 days) are often applied post-emergence and can surprise producers on legumes and mustards. Assure II/Targa has a 60 day half-life but most broadleaves and all grasses after 120 days should be safe, if lower rates are used.

Herbicides that can be applied to both corn and soybean that may cause problems to cover crops include Prowl (44 days), Python (Hornet and Surestart, 14-120 days), and Sencor (Metribuzin, 14-60 days). All cereal grains and most grasses are safe but legumes and mustards are at risk. Some of the safest herbicides to use before planting cover crops are Glyphosate, Gramoxone, Harmony, Liberty, Outlook, Sharpen, Select, Harness, Impact, Laudis, and Resolve; either because they have a short half-life or they have little to no soil residual activity.

The Putnam County OSU Extension office will be offering a new program to agricultural farm women called Annie's Project. Classes start September 22 and end October 27th and the educational programs will be held from 6-9PM on Monday Evenings with a light meal starting at 5:30PM. The classes will be held at the Putnam County Extension office, 1206 East Second Street, Ottawa, Ohio (cost is \$35). Call the Extension Office for more details (419-523-6294).