The EPA hosted a summit of stakeholders around the issue of corn planting with treated seed and the honey bee losses associated with it last season. The ABF was represented by Zac Browning, Gene Brandi and myself. In a full day of presentations and discussion, the seed companies, agronomists, growers, equipment manufacturers, beekeepers and, at the perimeter, environmental groups presented the current stage of the situation with an eye on the future.

The focus of this meeting was on the pesticide contaminated dust that occurs when the rough corn seed tumbled through the planting machinery loses some of the coating because of abrasion. This pesticide becomes mixed with talc or graphite, which is used as a seed lubricant in the pneumatic planters. Depending on the style of planter, this combination of dust and pesticide is exhausted into the air, and can be carried long distances by wind, sometimes many miles, and can land on blooming crops. Serious bee losses have been verified from this source. Losses to other pollinators are more difficult to verify, but nobody should be surprised if that is not an additional problem. Specifically not discussed by the manufacturers and growers was the impact of systemic pesticides as a source of contaminated pollen and nectar in the plants that have taken up the pesticides either from the seed treatment or from residue in the soil in subsequent planting.

It should be said that corn is not the only seed coated with pesticides in this way. Nearly all soybeans, canola and sunflower seeds are also coated. They do not seem to have the problem with dust because the seed is smooth and there is far less abrasion. However, the issue of a plant with this systemic pesticide expressing contaminated nectar and pollen is still present.

The pesticide companies, in concert with the equipment manufacturers and seed companies, have developed new wax coatings that do not seem to be as prone to creating dust. They will be doing large trials this year with the plan to have them fully deployed by 2015 planting. Using filters as an immediate solution apparently causes major problems with the machinery. Engineering filter solutions is possible. Think of what we have done with smoke stacks in industry; it would just take time and would be costly to develop.

Some discussion of why this method of pesticide application has become so pervasive should be included here. First of all, spraying pesticides has its own issues and that activity is closely regulated. Some might dispute how closely this activity is actually regulated, but there are rules and the EPA has oversight through the states. On the other hand, treated seed is not considered a pesticide application by the EPA. Planting treated seed is considered using a “treated product” and not a pesticide application. So, the EPA does not regulate this activity. If the pesticide is exhausted out of the planter into the air to be carried by the wind into the next county, even the EPA admits we are in new territory.

Using systemic pesticides is an attempt to solve a whole raft of pest problems in advance, even problems that the grower does not know or care about. On the other hand, one is applying pesticides for pests that sometimes aren’t even present, as well. Prophylactic use of antibiotics and pesticides leads to early resistance and eventual loss of valuable tools and flies in the face of basic IPM practices. The beekeeper input came from presentations from Dr. Jeff Pettis and Brett Adee. Both pointed out the declines suffered by the bee industry over time, culminating in the significant shortages of bees for almond pollination this

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Adee pointed out that many problems for our industry are the outcome of farming practices and policies made without any industry input, but the impacts and the costs downstream are not sustainable, and further, the non-managed pollinators and wildlife are left to suffer serious declines.

Adee presented the six best management practices for corn planting that the National Honey Bee Advisory Board had forwarded to the EPA. The problem is getting this information out to the growers. EPA has no intention of including them on the label. Crop Life America has developed a website on the subject, but in reality there can be little expectation that this next year’s planting procedures will be much different than last year’s. Likewise, the bee losses from 2012 will likely be repeated unless growers embrace reasonable precautions.

1. Plant treated seed only in accordance with Integrated Pest Management principles. Use of scouting and field history information can reveal whether economically damaging levels of pests controlled by seed treatment insecticides are present in the field. When using transgenic corn hybrids and/or granular or liquid insecticides to control key pests, treated seed may not be necessary.

2. Only use seeds treated with an effective adhesive agent and perhaps a polymer over coating to prevent abrasion of insecticidal dust from the seed and release to the environment. Only use corn seeds with coatings that do not exceed a Heubach dust abrasion value of 0.75 grams of dust per 100,000 kernels of corn [[ substitute similar “kernel equivalent” for other crops – EPA is requested to provide the appropriate technical specification ]].

3. If lubricants are used in planting machine seed hoppers, then only use lubricants causing minimal dust off.

4. Use deflectors and other measures on planting machines adequate to restrict dust to the planted field margins.

5. Planting treated seeds causes insecticidal dust drift. Drift is more of a hazard the faster the wind speed. Do not sow treated seeds when measured wind velocity exceeds ten (10) miles per hour.

6. Do not dispose of dust remaining in planters after planting into the environment. Carefully collect, cover and enclose the dust and dispose of it in accordance with the disposal requirements for unused portions of this insecticide according to this label.