



Agronomy News

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SCOUT NOW AND TREAT FOR ALFALFA WEEVIL IN SOUTHERN AREAS

With warmer than usual temperatures, there have been several reports of alfalfa weevil beginning to feed in areas south of I-70. If left unchecked, significant yield and quality losses can occur in first-cutting alfalfa. Look for feeding damage and larvae in the terminal leaves. An easy to use threshold developed by The Ohio State University is shown below. Possible treatments for alfalfa weevil management include AgriSolutions **Arctic 3.2EC** at 8 oz/A, **Taiga-Z** (Warrior) at 3.2-3.8 oz/A, or **Yuma 4E** (Lorsban 4E) at 1-2 pt/A. Adding appropriate adjuvants such as **Preference® + Interlock™**, (or **PowerLock™**) can improve canopy penetration and spray coverage.

Alfalfa Weevil Guidelines (OSU)

Alfalfa Height (in)	Tip Feeding %	Weevils Per Stem	Action
6	25	1	Recheck in 7 days
9	50	1	Apply rescue treatment
12	75	2	Apply rescue treatment

CONCERNS WITH AMMONIA APPLICATION AND CORN PLANTING

With delays due to wet soils in many areas, the timing between spring ammonia application and corn planting may be shorter than desired. In general, waiting at least 3 to 5 days between ammonia application and planting will provide adequate safety. The most important consideration is having sufficient soil separation between the ammonia injection zone and the seed. Injection depth of the ammonia is very important. Ammonia will generally diffuse 2 to 3 inches from the point of injection in most soils. Additional suggestions to reduce seedling injury include applying preplant ammonia at an angle or providing a

good lateral offset from the row, and not applying ammonia to wet soils. If knives smear the sides of the injection slot due to wet soil conditions, outward ammonia diffusion will be limited, resulting in potential increased upward movement, and thus greater injury potential. Although a waiting period is generally recommended, it is possible to plant corn immediately after ammonia application, if the ammonia is injected at a proper depth, with good soil coverage, or there is good lateral offset from the seed row.

WHEN WILL MY CORN EMERGE?

For corn to properly germinate and emerge in a normal fashion, soil temperatures at a depth of four inches should consistently average 50° F or higher. Germination and emergence will not occur quickly or uniformly when soil temperatures hover at or below this mark. Once adequate soil temperatures have been reached, the growing degree days (GDD) required for corn emergence will typically vary between 100-150 GDD, with 125 GDD as a good average.

$$GDD = \frac{(\text{Min temp} + \text{Max temp}) - 50}{2}$$

Most elite hybrids can remain in cold soils for 3-4 weeks and still emerge to produce excellent stands. However, soil moisture and other factors such as insects and disease often impact stand health when emergence is slowed. The greatest concerns for slow emerging seedlings would be soil insects such as wireworm or white grub, and seedling diseases such as pythium. Look for feeding damage, or seed with poorly developed radicles (primary root) or coleoptiles (shoot), showing dark brownish lesions or rot. Also remember to communicate that the use of new commercial seed treatments or products such as **Concur** hopper box seed treatment will help protect the seed and young seedlings from both soil insects and disease.

BLACK CUTWORM MOTHS AT HIGHER LEVELS COMPARED TO PAST

Black cutworm moths are being found more frequently across the region as compared to the last several seasons. Reports of several intense moth captures have been made recently, and should continue with storm fronts through the month of April. Female moths will most likely lay their eggs in fields now covered with grasses or winter annual weeds such as chickweed and mustards. Fields that are currently showing a lot of "green-up" are at the highest risk for cutworm damage. Because the occurrence of cutworms is difficult to predict, Universities recommend scouting emerged corn and spraying insecticides as needed for rescue. However, insecticides such as **Pounce 3.2EC** (4-6 oz/Acre), **Delta Gold** (1-1.5 oz/Acre, or **Taiga Z** (1.92-2.56 oz/Acre) can also be applied early with herbicides or liquid nitrogen, thus providing a convenient economic treatment to prevent cutworm damage in many no-till or otherwise weedy fields.

YES! IT PAYS TO USE SOYBEAN SEED TREATMENT AND INOCULATION

With the move toward earlier planted soybeans, it would be wise for growers to protect their investment with seed treatment. Slowly emerging soybeans and cool wet weather increase the possibility of rotting in the soil, or dying shortly after emergence. The use of a proper seed treatment can help reduce seed rot and seedling damping-off problems caused by diseases such as phytophthora and pythium, especially when soybeans are planted early and/or growing conditions turn ugly. **Warden RTA** (used at 5 fl.oz. per cwt.) offers the best combination and rates of active ingredient to control all the major seed rot and seedling blight diseases, including phytophthora. Field research has shown benefits of a 5-10% increase in yields on a fairly consistent basis.

Many growers are also surprised to learn that a typical soybean crop will use nearly 4 pounds of nitrogen for every bushel of yield. The vast majority of this nitrogen comes from Bradyrhizobium bacteria in soybean root nodules. The use of new inoculant products containing improved strains of these bacteria,

not normally found in our soils, has consistently improved soybean yields through several years of university testing, even in corn/soybean rotations. The Ohio State University recently reported that in over 60 trials since 1995, they have recorded an average yield increase of nearly 2-bushel per acre, with a high degree of consistency. Michigan State University conducted 11 test sites in 2003-2004, with an average increase of 1.33 and 0.72 bu/acre respectively. Purdue University has conducted trials for eleven years, reporting average yield increases up to 2.4 bushels in some years, and a long term average of 1 bu/acre. Although yield increases are small the cost to inoculate the seed is also small, making the practice profitable over time. Inoculants such as Nod+, Cell-Tech, Optimize, and Vault, are excellent risk management tools to help ensure that nitrogen does not become a limiting factor in soybean production. In most cases these inoculants can be mixed and/or applied with Warden RTA without any problems. Be sure to check the inoculant compatibility information for recommended planting intervals.

CONTROL EXISTING VEGETATION BEFORE PLANTING CROPS

With the robust amount of winter annual weed growth and early spring weed emergence, many fields that did not receive a fall burndown treatment are becoming quite woolly. It is important to control these weeds prior to crop emergence, as they can become very competitive if not controlled. In many cases, it may be more desirable to control these weeds several days prior to tillage or planting, as high weed densities (particularly chickweed), can interfere with both tillage operations and/or seed placement. Remind your growers that at the time of planting, starting with a clean field will improve both weed control and yields. Refer to the Agrilience Crop Protection Guide for a listing of possible burndown products, rates, and efficacy.