



March Newsletter

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2016 Projected Prices for Corn and Soybeans Announced By Bob Bruch

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Special Points of Interest:

- Barley straw can control pond algae and it is not considered a pesticide therefore anyone can apply it even if they do not have a pesticide license
- Phosphorus can cause excess algae blooms in ponds and lakes and sometimes phosphorus gets into the waterways though run off
- Soil tests indicate the health of the soil by providing the soils pH, organic matter, and nutrient values such as phosphorous, potassium, magnesium, and calcium

The Risk Management Agency, USDA recently released 2016 projected prices for corn and soybeans for New Jersey. Projected prices are used along with a producer's crop history records or T-yields if records are not available to determine the various levels of dollar protection for buy-up and catastrophic crop insurance policies. When the crop is produced RMA establishes harvested prices for indemnity claims.

The RMA projected price for corn for grain was set at \$3.86 per bushel for 2016 for all counties in New Jersey. For catastrophic coverage the projected price was set at \$2.13 per bushel. For organic corn the projected price was set at \$8.42 per bushel. The catastrophic coverage level for organic corn was set at \$4.64. The projected prices for corn transitioning into organic are the projected prices for traditionally produced corn.

For corn silage the projected price was set at \$35.50 per ton and for catastrophic coverage \$19.53 per ton. Organic silage had the projected price set at \$77.50 per ton and for catastrophic coverage \$42.63 per ton.

Soybean projected prices was set at \$8.85 per bushel and for catastrophic coverage \$4.87 per bushel. Soybeans produced organically have a projected price of \$16.85 per bushel with the catastrophic coverage being \$9.27 per bushel. The projected prices for soybeans transitioning into organic are the projected prices for traditionally produced soybeans.

The Risk Management Agencies website www.rma.usda.gov provides projected prices for 2016 data and information on T-Yields for corn and soybean production. T-Yields vary by county in New Jersey whereas projected prices are the same in all counties. For example, T-Yields for non-irrigated corn range from 93 to 112 bushels per acre in various New Jersey counties. For soybeans T-Yields range from 28 to 42 bushels per acre. T-Yields are also available on organically produced corn and soybeans. To find this information on the RMA website click on "Information Browser" then on "Actuarial Information Browser", reinsurance year 2016, and select the commodity, year, insurance plan, state and county for which information is sought.



Crop Insurance

FARMER SUCCESS STORY



Farmers minimize their risk through grain crop insurance –Salem County NJ



With the ever increasing cost of putting crops in the ground , farmers can no longer afford to gamble on crop survival and many of them now turn to crop insurance as a safety net. One such farm that implements crop insurance to protect their grain crops is Spring Brook Farms in Pittsgrove NJ. Byron DuBois, Co-owner and manager of Spring Brook Farms makes sure that his 630 acres of wheat, 1,800 acres of corn, and 1,000 acres of soybeans are covered each year with crop revenue coverage using the enterprise units option. “With the cost of production being so high now-a-days, and having so much risk involved in growing crops, with the low cost of crop insurance you can protect yourself from these risks” says Byron. “There is no “normal” weather anymore and when you already have that much money into cost of production for your crops, you just factor in crop insurance as well to protect you, you can’t afford not to these days.” When asked whether the trend adjustment option for grain crop insurance policies has helped him Byron responded “yes trend adjustment has resulted in me having a higher production average in my production history).” Spring Brook Farms

has insured their crops with crop insurance for the past 15 years. During this time they received indemnity payments when their grains suffered during a



drought and again when their wheat quality was low due to weather related causes. During one season, Byron was prevented from planting some of his grain on time because the ground was too wet but was able to receive help through the prevented planting clause in his insurance policy. With

natural disasters becoming more common then ever in recent years, it is highly recommended to cover your crop risk with crop insurance through the Risk Management Agency! Insurance premiums are partially subsidized to make insurance more affordable then ever!



For additional information, or a list of NJ crop insurance agents, contact The Garden State Crop Insurance Education Team at

1-800-308-2449 or visit us online at:
<http://salem.njaes.rutgers.edu/cropinsurance/>

Pond and Lake Management Using Barley Straw to Control Algae

Rutgers Factsheet FS1171 By Mike Haberland and Sal Mangiafico

Algae and other aquatic plants provide food and oxygen for fish and other aquatic life. However, excess algae in a pond can interfere with fishing or swimming, and cause aesthetic problems such as mats of algae on the water surface and unpleasant odors. While algae produce oxygen during the day through photosynthesis, oxygen production ceases at night. Because algae continue to use oxygen at night, however, large populations of algae in a pond can deplete the oxygen supply in the water overnight, causing a low-oxygen condition that can be harmful or even fatal to fish and other aquatic life. Compounding this problem is that when large populations of algae die, their decay can further deplete the water's oxygen.

Barley Straw for Algae Control

The use of barley straw for controlling algae in ponds is becoming more common. Its use dates from England in the 1990's, where studies found it to be effective for this purpose. Since then its use has spread throughout the United States both by pond owners looking for easy and effective ways to combat algae, and by scientists trying to assess how effective it is. Other types of straw, such as wheat or rye, have not been shown to be effective for this purpose.

Identifying Algae and Higher Plants

Barley straw is effective in controlling only algae. It is not effective against higher plants, or vascular plants, such as duckweed, watermilfoil, or pondweed. Algae come in many different shapes. One common form is called *planktic*, which are single cells that float in the water column and give the water a soupy-green appearance when abundant. Another form is *filamentous*, which grows in hair-like strands, often forming mats at the water surface. Some algae form relatively complex shapes that may appear to be higher plants, but no algae have special-

ized tissues such as leaf veins or roots.

How Does Barley Straw Work?

Barley straw prevents the growth of algae. It does not kill existing algae. Because of this action, it is sometimes called an *algistat* as opposed to an *algicide*. It is not understood how barley straw prevents the growth of algae. It is believed that the decaying straw releases chemicals that inhibit the growth of algae. There are some suggestions as to what these chemicals may be, but the exact mechanism has not been determined. Other theories suggest that the decaying straw feeds microbes or algae predators.

How Effective Is Barley Straw?

There is some very positive anecdotal and research-based evidence that barley straw is effective in controlling at least some kinds of algae, but results are mixed as to which kinds are controlled. In general, research and anecdotal evidence suggest that barley straw is effective in controlling planktic algae, and will clarify water that is green from algae. But results are mixed about its control of filamentous algae, mat-forming algae, and blue-green algae while some trials report positive results for these types of algae, others do not. One such trial at a commercial nursery in southern New Jersey found that barley straw used at the recommended rate did not impede the growth of filamentous algae in a ¼-acre farm pond. However, another trial at a Rutgers University Research and Extension Farm found that using barley straw reduced, but did not eliminate, filamentous algae in an irrigation pond. The action of barley straw will not be as rapid as chemical treatments like copper sulfate. Using barley straw in ponds is not known to cause harm to people or to any higher plants or animals. However, one reported problem is that by reducing the population of algae, using barley straw may allow for the increase of other pond weeds.

How Should Barley Be Used?

Only dry straw should be used. Fresh material should be avoided. The usual recommended quantity to use is 225

pounds (or 4–5 bales) per surface acre of water. Reported recommended rates range from as low as 110 pounds per acre, and higher rates are recommended for water that has a high percentage of suspended sediment or appears muddy. But it has been recommended that a rate of 450 pounds per acre never be exceeded to avoid the decaying straw from depleting the water of oxygen. A typical recommended rate for small ponds is 1 pound of straw per 2000 gallons of water, though manufacturers of packaged barley straw products vary on their recommended rates. The bales need to be broken up and fluffed so that there will be a good flow of oxygenated water around the decaying straw in the pond. It is recommended that the loose straw be placed in woven sacks such as onion sacks, bird netting, Christmas tree netting, or jute netting. The sacks should be tied to something buoyant so that they stay within a few feet of the pond surface, and can be anchored in place. Securing the sacks in this manner will allow for easier retrieval when it is time to remove them. The sacks should be evenly spaced across the pond if practical, or placed in the center of small ponds. It is generally recommended that the straw be placed in ponds in the spring, before the algae begins to grow. The appropriate date will depend upon local weather conditions, the temperature of the water, and when algae typically begin to grow in the specific pond. For the barley straw to have an effect, the water will need to be warm enough to begin the decay of the straw. However, because there may be a lag of several weeks for the decay process to develop, deploying the straw early is recommended. Appropriate dates may range from April to as early as February depending on location, local weather, and water conditions. The straw is generally said to be effective for four to six months. If straw is

placed out in April, it may then be wise to replace it in mid-July to obtain season-long control.

Barley Straw Is Not a Pesticide

Barley is not considered a pesticide by the U.S. Environmental Protection Agency or by the state of New Jersey. This allows it to be used in ponds without a permit or license. For a private land owner, it is considered a home remedy, not a pesticide, though there may also be limitations on its use in public or shared lakes.

Other Strategies to Control Algae in Lakes and Ponds

- Excess algae growth in ponds and lakes may be promoted by increased concentrations of nutrients in the water, particularly of phosphorus. These nutrients can come from a variety of sources
- including runoff from lawns, farms, pastures, and roads, malfunctioning septic systems, or from wildlife excrement. Several options to reduce the amount of algae in a waterbody may be available depending on the cause of the algae bloom and resources available. These include: physically removing filamentous algae with rakes or nets
- diverting nutrient runoff from entering the waterbody
- treating runoff with buffer strips of grass or other vegetation before it enters the lake or pond
- reducing phosphorus fertilizer use and soil erosion from adjacent lawn areas
- discouraging geese and other wildlife from frequenting the waterbody
- avoiding disturbing pond sediments

- using an aerator to disperse algae and minimize the effects of algal blooms and die-offs

Registered herbicides are available for the control of algae and weeds in ponds. However, herbicide applications to water bodies in New Jersey can be done only by someone possessing a pesticide applicators license. Furthermore, an Aquatic Pesticide Permit must be obtained from the New Jersey Department of Environmental Protection (NJDEP, 2010). These stipulations—among other considerations—may make registered herbicide applications an unattractive option for homeowners and some businesses. Copper products for algae control are also considered herbicides by the state.

Soil Tests Can Reduce Your Fertilizer Costs and Save You Money

Now that its about that time to start putting spring crops in the ground, you may want to consider soil sampling your fields. Running a soil test on your fields may prove to be a smart move for your production strategies. Soil tests indicate the health of the soil by providing the soils pH, organic matter, and nutrient values such as phosphorous, potassium, magnesium, and calcium. The soil test results compare your soils values to a scale and let you know if the nutrients in the soil are low, medium, optimum, or excessive. From these results, you can

make more informed decisions on which fields to place fertilizer and what kinds. For example if a field is sampled and comes back with excessive levels of potassium, there is little need to put fertilizers with potash on it. Additionally, if a field's soil test comes back high in phosphorus then one might think twice about spreading manure on it. The soil test results also give liming and fertilizer suggestions based on the crops previously and currently planted there. Knowing which fields require which kinds of fertilizer and which fields are in little need of it can save you time and mon-

ey in the form of fertilizer and labor costs. Soil tests usually cost between 12-20 dollars a sample and are run at certified soil testing labs. It is customary to take several samples from each field and compile it into one large sample. To do so, one must probe approximately 6-10 inches into the soil to collect a representative sample about 10-20 times for each field. Your local Rutgers Extension Offices have pre-paid soil bags which can be used to send the soil samples to the different soil labs. Results take approximately a month to be received.

This newsletter is brought to you by the Garden State Crop Insurance Education Initiative, a partnership between the USDA Risk Management Agency, New Jersey Department of Agriculture and Rutgers Cooperative Extension of Salem County. For additional information about crop insurance contact a crop insurance agent (www3.rma.usda.gov/apps/agents/ or visit our website <http://saalem.rutgers.edu/cropinsurance>, or call our toll free hotline 1-800-308-2449 <http://www.rma.usda.gov/tools/agent.html>

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