# ProfitPro®AG Farm Report

May 2019

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# **Crop Management News**

by Dr. Jim Ladlie, ProfitProAG President

### Key Crop Inputs and Corn Planting Depth Considerations for 2019

#### **Biological Seed Coatings**

ProfitProAG's biological seed coatings provide a seedling and season-long plant health enhancement system. The benefits of the coating include improved consistency and uniformity of stand, increased seedling vigor, enhanced root health and standability throughout the growing season. They contain beneficial microorganisms



that will colonize the germinating seedling root and boost the biology in the rhizosphere. In addition to enhancing the plant's health, the consortium of beneficial bacteria and fungi fix nitrogen and improve availability and solubility of plant

nutrients. The coating contains up to 75 trace elements to support the microbes and seedling during initial stages of growth.

The biological seed coatings are available in both liquid and dry formulations and can be applied to all types of seeds. Coatings can be applied with a soybean inoculant and can be approved for organic production. ProfitCoat<sup>™</sup> PB (Planter Box) is a dry formulation that can be applied at-plant or as a pre-treat.





More from Every Acre, Every Animal & Every Gallon of Manure

#### FREE Teleconference Calls

Agronomic/Livestock 3<sup>rd</sup> Thursday of the Month May 16, 2019

<u>Call #</u> 1-855-212-0212

Meeting ID # 769-100-082#

Time 8 to 9 pm Central Time

#### For More Information or to find a Consultant in Your Area

Call 1-888-875-2425 Ask about the ProfitMaster™ Full-Circle System and the Manure Master™ Program

www.profitproag.com







#### Seed Placement Affects Early Corn Root Development and Yield

Seed selection and placement are two of the most important management decisions a grower can make. Properly positioning the corn seed is critical to minimizing stress and protecting yield.

#### **Importance of Planting Depth**

The ideal planting depth is  $1\frac{1}{2}$  to  $2\frac{1}{2}$  inches. During seedling emergence, when the coleoptile tip reaches the soil surface and receives sunlight, mesocotyl elongation stops and the plumule emerges. At this time, if the seed was planted at least  $1\frac{1}{2}$  inches deep, then the growing point of the plant is about  $\frac{3}{4}$  to one inch below the surface.

If the seed was planted too shallow (less than 1 inch deep), then the nodal roots will be just below or on the soil surface, which may result in rootless corn held on by only the mesocotyl. It can also result in injury from direct exposure of



the growing point to herbicides. In addition, the soil surface may be too hot for the nodal roots to grow properly.

If the seed is planted too deep (3 inches or more), then the seed needs extra energy to push the coleoptile to the soil surface. Under these conditions, the coleoptile may split, and cause the plant to leaf out under the soil surface.



### **Planting Depth and Nodal Roots**

The corn seeds above were planted at  $2\frac{1}{2}$  and  $1\frac{1}{2}$  inches deep. However, the depths of each "crown" will develop at 1 inch and  $\frac{3}{4}$  inch, respectively. The main root system will develop from the crown. The mesocotyls of the two root systems are  $1\frac{1}{2}$  and  $\frac{3}{4}$  inch long, respectively. As shown, if a seed is placed at  $1\frac{1}{2}$  inches or deeper, then the nodal roots will be  $\frac{3}{4}$  to 1 inch below the soil surface.

### Herbolyte<sup>™</sup> Plus is a Foliar Crop Enhancer

Herbolyte Plus can be used as a foliar application to provide energy and micronutrient enhancement to crops. It is a liquid formulation that is applied at 16 ounces per acre. It is also designed to enhance herbicide performance by modifying spray solution pH, water hardness and supplying a balanced blend of micronutrients (0.03B - 0.001Co - 0.07Cu - 0.15Fe - 0.23Mn - 0.02Mo - 0.22Zn). The ingredient blend in Herbolyte Plus has been found to promote herbicide uptake (such as glyphosate) in agriculture applications. Herbolyte Plus is designed to be used with glyphosate and Liberty products.

Herbolyte Plus' advantages include faster weed burndown and active crop growth after glyphosate application while the micronutrient blend assures adequate availability for the crop.

# **Livestock & Manure Management News**

by Dr. Jim Ladlie, ProfitProAG President

## **Enhancing Forage Utilization by Dairy and Beef Animals**

On average, a dairy or beef animal gleans only about 45% of the nutrition and energy from forages in the 30 hours it takes to pass through the digestive tract. The key to increasing utilization involves predigestion of high moisture forage through microbial fermentation.

Forage Enhancer contains numerous groups of beneficial anaerobic microorganisms that improve the quality of fermentation. They also break down and reduce the complex carbohydrate structures in plants such as lignin, cellulose and hemicellulose, which are less digestible by the animals, and make these feed nutrients more bioavailable in the animal's digestion process. In addition to producing essential nutrients, minerals, growth regulators, vitamins and enzymes that greatly aid



the animal's dietary needs, these beneficial microbes also help control pathogenic populations. When applied to feed, these microorganisms preserve and enhance the quality. Forage Enhancer helps prevent molds, improves taste and nutrient value of feed. It allows higher moisture content during the forage process without spoilage or mold and can also be used for organic production. High moisture forages that already have mold can also be treated and thus prevent forage loss. Forage Enhancer is an anaerobic microbial preservative. Reducing the oxygen content in the harvested forage as much as possible improves performance.



### "How fiber is digested can easily make five to six pounds per day difference in milk production in a dairy cow."

 David Combs, PhD Dairy Scientist, University of Wisconsin



Application of Forage Enhancer on High Moisture Forage



**Baler Tank to hold Forage Enhancer** 



Wrapping Bales Treated with Forage Enhancer

In low moisture forages (10 to 20 percent), the microbes will reduce pathogenic organisms that produce molds and mycotoxins and cause a very slight fermentation of the feed. Humans cannot tell the difference in the feed, but an animal can and will choose this forage over another. The baled material will remain green, look dry and appear normal. This allows a hay producer to bale hay at higher moisture content (15 to 18 percent) to retain the leaves, increase the "relative feed value" or "relative feed quality," and receive a premium price. **Forage Enhancer** helps control molds and prevent bale heating.

One of the key benefits of Forage Enhancer is that it allows the grower to harvest forages from 20 to 70 percent moisture.

Forage Enhancer is made with organic compliant materials and can be approved by organic certifying agencies for USDA-NOP programs.

Apply **Forage Enhancer** to 20 to 70 percent moisture forage, roughage (straw, corn stalk, etc.), corn silage or high moisture grains at the following rates:

Feed Type	Forage Enhancer/Ton
High Moisture Forages/Corn Silage	1/2 gallon/ton
High Moisture Roughage	1 gallon/ton
High Moisture Grains	3/4 gallon/ton

Mix with **Fermentation Minerals**<sup>™</sup> to enhance the fermentation process and digestion of ruminant animals at time of application. Fermentation Minerals can be added at 1/2 oz per ton.

Mix the **Forage Enhancer** and **Fermentation Minerals** together. Apply a very light spray to the surface area of the plant materials being treated.

On high moisture roughage such as corn stalks, oat or wheat straw, use liquid molasses at 5 to 10 ounces/ton as a transition food for the microbes.

Performance in large squares is better than round bales. On unwrapped round bales, use <sup>3</sup>/<sub>4</sub> gallon per ton. Wrapping the harvested crop is the best for complete fermentation. The outer layer of unwrapped round bales may show some white yeast growth because of increased oxygen content. This is not mold; it is a beneficial yeast growth, which will not harm the animal. Livestock find this very palatable.

Call ProfitProAG and speak to a consultant to discuss Forage Enhancer.

# FASTER WEED KILL...HEALTHIER CROPS ....MORE PROFITABLE

Herbolyte Plus is the ideal herbicide additive for better weed control and provides your crop with key nutrients to ensure active growth.



0.03B - 0.001Co - 0.07Cu - 0.15Fe - 0.23Mn - 0.02Mo - 0.22Zn

- Contains a blend of micronutrients to enhance nutrient availability and uptake by the plants.
  - Promotes herbicide uptake (such as glyphosate).
  - Can be mixed with other foliar plant nutrients.
    - Modifies solution pH and water hardness.
      - Improves pesticide efficiency.
        - Easy to mix.



*Herbolyte Plus* with glyphosate *kills grasses and broadleaf weeds fast,* including waterhemp (left), dandelions (center) and lambsquarters (right) while *leaving your crops strong and green.* 

### Use Herbolyte Plus on Corn and Soybeans

Apply at 16 ounces per acre.

- 1 gallon will treat 8 acres.
- 10 gallons will treat 80 acres.
- 100 gallons will treat 800 acres.

Container sizes:

- 2.5 gallon jugs
- 275 gallon totes
- Bulk truck load

# ProfitPro<sup>®</sup>AG invites YOU to call in on the third THURSDAY of the month for the **FREE TELECONFERENCE**

A cost-effective and convenient way to gain knowledge on new crop production technologies

# It's Easy . . . It's FREE Thursday, May 16, 2019 8:00 p.m. Central Time

### **UPCOMING SUBJECTS**

- Key Crop Inputs and Corn Planting Depth Considerations for 2019
- Enhancing Forage Utilization by Dairy and Beef Animals

Dr. Jim Ladlie, *ProfitProAG President*, will discuss the upcoming subjects and answer questions you may have.

For more information visit www.profitproag.com and click on "Monthly Teleconference."

### **DIRECTIONS FOR CALLING IN**

- 1. Dial the toll free number **1-855-212-0212** at 8 p.m. **SHARP** (Central Time) to get in from the beginning.
- 2. Enter the meeting ID No. 769-100-082# (pound or hashtag key).
- 3. All calls will be muted when joining the teleconference.
- 4. To ask a question during the Q & A portion of the program, press \*6 (star six). After asking the question please press \*6 to re-mute your phone.
- 5. **NO FEE** or pre-registration required.
- 6. Access the teleconference anytime between 8 to 9 p.m. (CT)