ProfitPro®AG Farm Report

August 2020

ProfitProAG

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

Crop Management News

Dr. Jim Ladlie, ProfitProAG President, presents part three of a series on

THE FULL-CIRCLE REGENERATIVE & SUSTAINABLE CROP & LIVESTOCK PRODUCTION SYSTEM:

"A Natural Microbiological & Nutritional Approach to Enhanced Profitability."

Over the next several months, there will be discussion on how we can farm using natural technologies to improve soil health and control pests. Experienced growers and experts in a given technology will be asked to join in on the discussion.

Please join us for our free webinar the third Thursday of each month from 8 to 9 p.m. (CT). See directions on last page.

Part III

Fall Crop Residue Digestion & Nutrient/Energy Recycling Program

The "Second Harvest"

This program will set the stage for:

- Crop residue digestion, trapping the carbon (energy), nutrients and secondary microbial metabolites in the soil.
- Dramatic improvements in soil health and the soil food web, including improved soil structure over time, that allows for better drainage, aeration and nitrogen fixation.
- Reduced or eliminated mycotoxins, root and foliar diseases, insect and weed pressure. Remember, pathogens and insects are nature's garbage collectors. They are there to take out the crops that are not worthy of reproducing. By eliminating toxins and building the bioactive carbon, biodiversity, nutrient balance and nutrient availability, you'll reduce your cost of production over time. Yield, grain quality and profitability per acre will increase.
- Improved soil-to-seed contact, along with uniformity of seedling emergence and crop stands.
- Reduced tillage (strip-till) or no-till, due to residue digestion and improved soil structure. Tillage can be reduced (strip-till) or eliminated (no-till).
- The opportunity to receive carbon sequestration credits.

Residue management by the numbers:

- 4 tons of residue per acre are left behind on a 180-bushel corn crop.
- 2.1 tons of corn roots are in each acre too.
- 80-30-190 (the N-P-K contained in those 4 tons of corn residue).
- 16 pounds of sulfur, 35 pounds of calcium and 25 pounds of magnesium are in those 4 tons, too.

FREE Webinar

Agronomic/Livestock

3rd Thursday of the Month

August 20, 2020

Time

8 to 9 pm Central Time

Visit www.profitproag.com

To join the Webinar, click on the link provided in "Monthly News Webinar"

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

Learn and Earn Event

"FENCE-LINE" FARMING

You are invited . . .

Wed, Aug 26, 2020
Eric Miller Farm
Cascade, IA

See RSVP on Page 5

Twin row 60" corn with 17 species of cover crops

Manure Master™

Innovative Manure Management

manuremaster.com

"The Manure Treatment Experts"

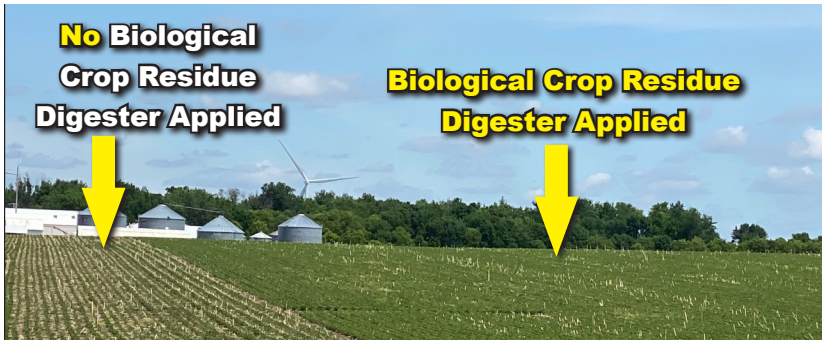
The Fall Crop Residue Digestion & Nutrient/Energy Recycling Team

1. **MeltDown™ (Environoc 501 for organic production)** is a mixture of 25 microbes, including organic crop residue digesters, organic acids and nitrogen. It's designed to break down cellulose and lignin found in tough-to-digest corn stalks.
2. **Eubio-NBS (c10)** is a natural biological stimulant that works with existing microorganisms and applied microbes to speed up the crop-residue digestion process. It boosts the microbes to multiply faster, increasing digestive enzymes and secondary metabolite production. This enhances the residue digestion process and soil food web. As a soil conditioner, Eubio-NBS (c10) improves water infiltration, boosts aeration, and enhances nitrogen fixation. It also addresses unbalanced pH levels, soils overloaded with salts and nutrient availability.
3. **Pacific Gro (2-1-0.3)** is seafood for the soil. This liquid fish formulation provides a diverse diet to fungi and beneficial microbes. It contains a highly soluble source of calcium, amino acids (13% protein), chitosan, 13% oils and fats. Fungi drive crop residue digestion, promote soil carbon sequestration and enhance soil bioactive carbon. The chitosan content acts as a biopesticide that boosts plants' natural ability to defend themselves against pathogenic microbes, insects and parasitic nematodes.
4. **Sea-Crop®** is composed of more than 90 naturally occurring elements and minerals derived from pristine seawater. These minerals, and the equally important trace elements, act as enzyme activators, growth stimulators, biological stimulators and a catalyst to form other nutrients in plants. The trace elements in Sea-Crop enhance the microbial crop-residue digestion process. The goal in a complete residue-digestion program is to produce healthy crops that are naturally disease and pest resistant, with exceptional taste, flavor and nutrient density.

REGISTERED MATERIAL
For Use In Organic Agriculture
Washington State Dept. of Agriculture

5. **Bio-Release™ (Solu-PLKS™ for organic production)**
   Bio-Release acts as a compatibility agent, helps unlock unavailable plant nutrients in the soil and stimulates the soil microbiome. Bio-Release is especially effective at stimulating fungi that break down crop residue.
6. **Molasses** is a source of energy and minerals to stimulate beneficial microorganism and boost nutrient availability, crop residue digestion and plant growth. (Organic molasses is available).

The combination of these ecologically-friendly soil and plant technologies speeds the complete digestion of crop residue and primes the environment to produce nutrient-dense, high-energy crops.



Apply after harvest on top of the crop residue:

Option 1:

Products		Organic Certified	Rate/Acre
1.	MeltDown ***or***	No	32 oz
	Environoc 501	Yes	24 oz

Option 2:

Products		Organic Certified	Rate/Acre
1.	MeltDown ***or***	No	24 oz
	Environoc 501	Yes	16 oz
2.	Eubio-NBS (c10)	Yes	10 oz

Option 3:

	Products	Organic Certified	Rate/Acre
1.	MeltDown ***or***	No	24 oz
	Environoc 501	Yes	16 oz
2.	Eubio-NBS (c10)	Yes	10 oz
3.	Pacific Gro (2-1-0.3)	Yes	40 oz
4.	Sea-Crop	Yes	20 oz
5.	Bio-Release ***or***	No	8 oz
	Solu-PLKS	Yes	8 oz
6.	Molasses ***or***	No	26 oz
	Organic Molasses	Yes	26 oz

Note: If heavy pressure from insects, diseases or nematodes occurred during the growing season, add a chitosan product (OII-YS or O1-YS organic at 1 pt/acre) to your fall crop-residue digestion program. Research shows that the chitosan technology acts as a biocontrol agent, reducing pest pressure in next year's crop. When applying chitosan products, you must lower spray solution pH to 5.0 or below.

Fall Crop Residue Digestion Programs, Cover Crops and Manure Applications

The combination of a fall crop-residue digestion program and cover crops is the ultimate in achieving healthy soil, higher crop yield potential and enhanced crop quality. These regenerative, sustainable practices will improve your short-term and long-term profitability.

Even if a cover-crop program isn't implemented, the crop-residue digestion program will allow you to achieve many benefits of a cover-crop program, including biodiversity, building bioactive carbon, nutrient balance/availability, lower pest pressure and reduced soil toxins.

The fall residue-digestion program applied before or after manure applications (liquid or dry) will enhance the in-field digestion and utilization of the manure.

Fungal Corn Residue Digestion

Cost offset for the fall residue program

Reduce costs and boost profit potential with:

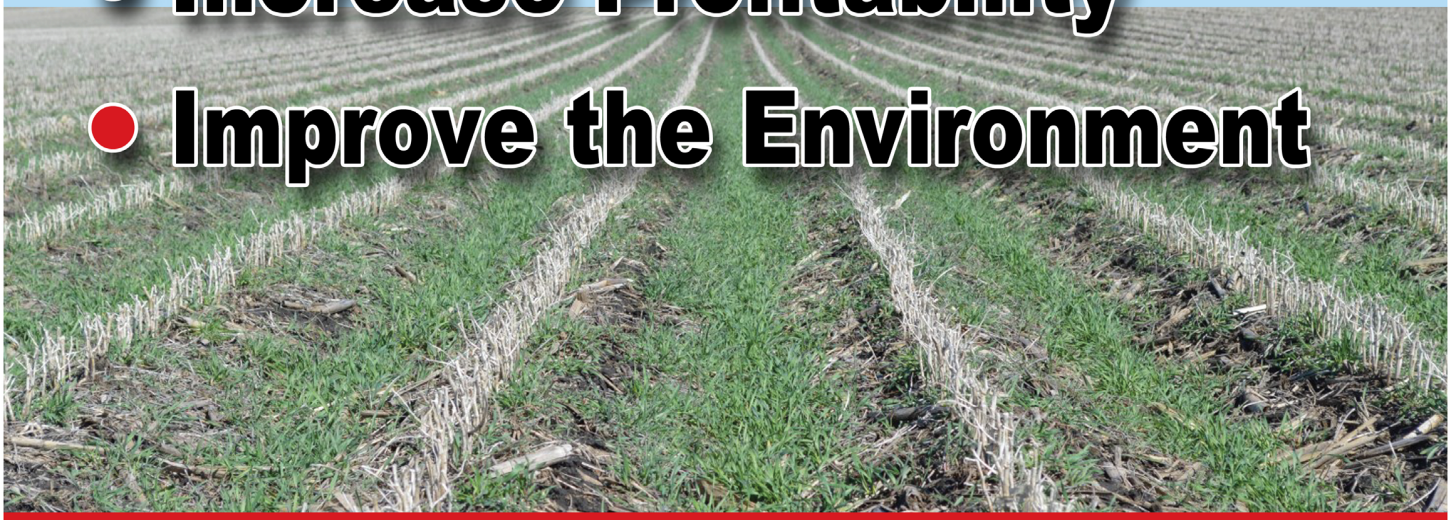
- Less tillage and less horsepower required
- Ability to no-till
- Better planter performance (less hair pinning and plugging)
- Improved nitrogen fixation and availability
- Improved nutrient availability and balance
- Nutrient recycling in residue, which can reduce purchased crop inputs
- Capturing more carbon in the soil to build organic matter
- Building organic matter, which anchors nutrients to your farm
- Improved sugar production when plants capture more CO2 from the soil
- Reduced iron chlorosis
- Reduced need for insecticides and fungicides
- Soils that warm up sooner for earlier planting
- Improved seed-to-soil contact and final stands
- Reduced weed pressure over time
- Enhanced soil biodiversity
- Reduced soil toxins
- Improved cover-crop benefits
- Carbon sequestration credits (if available)
- Enhanced yield and crop quality

"Undigested crop residue carry over from the previous year(s), can reduce crop yields up to 30%."

Corn on Corn Residue Management	Soybeans on Corn Residue Management
	
Digested Residue	Digested Residue
	
Undigested Residue	Undigested Residue

MANAGE SOIL HEALTH

- Increase Crop Productivity
- Increase Profitability
- Improve the Environment



Four Basic Principles to Improve Soil Health

1. Keep the soil covered as much as possible.
2. Disturb the soil as little as possible.
3. Keep plants growing throughout the year to feed the soil.
4. Diversify as much as possible using crop rotation and cover crops.

ON FARM Trial Series Nelsons Farm Trial – Corn to Bean MeltDown Stubble Digester Trial

Jackson, Nebraska

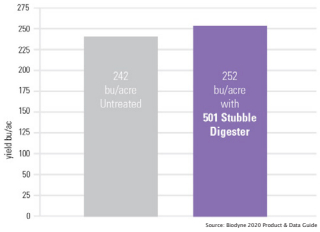
- MeltDown applied to soybean crop with pre-emerge herbicide following a previously grown corn crop
- Trial Findings:
  +4.5 BPA soybeans with MeltDown

Source: Biodyne 2020 Product & Data Guide

Corn to Corn Environoc 501 Stubble Digester Trial

Mitchell County, Iowa

- Environoc 501applied to corn stubble in fall. Data from corn crop grown following season. Results from two 22 acre fields.
- Trial Findings:
  +10 BPA corn with Environoc 501

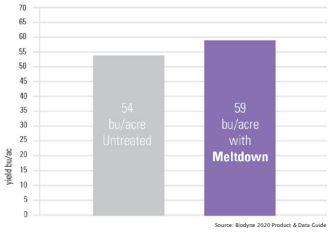


Source: Biodyne 2020 Product & Data Guide

Corn to Bean MeltDown Stubble Digester Trial

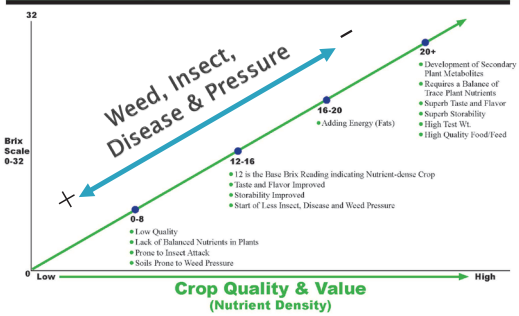
Iowa

- MeltDown applied to corn stubble in fall. Data from soybean crop grown following season. Results from 154 acre field, 70 acres treated.
- Trial Findings:
  +5 BPA soybeans with MeltDown



Source: Biodyne 2020 Product & Data Guide

Growing High Brix Crops is Dependent on Soil Health



ProfitProAG

"FENCE-LINE FARMING"

LEARN & EARN EVENT

This event will provide a recipe to establish the "FENCE-LINE" benefits on every acre.

"Where's the best soil on your farm? **The undisturbed fence line.** *This nutrient-rich area has deep topsoil, high organic matter, and a lively soil biology, because it has never been tilled or disrupted. We want to bring the same fence-line soil biology back to your fields."*

—Dr. Jim Ladlie, ProfitProAG President

Location, Date & Time

Eric Miller Farm

30332 Goose Hill Road
Cascade, Iowa 52033
563-542-5313

Wednesday, Aug 26, 2020

10:00 am to 3:30 pm
with LUNCH

Soil Health · Plant Health · Animal Health · Human Health
PROFITPROAG®
ProfitProAG
It Starts with Soil Health
FULL-CIRCLE

What you will view & learn about:

- **The Full-Circle System**
- **The benefits of twin row 60" corn with an interseeding of 17 species of cover crops**
- **The "How to" and benefits of planting into clover**
- **How to implement a sustainable, profitable crop production system long-term**

Please RSVP by calling ProfitProAG at 507-373-2550 or 507-383-1325

FE-3_122008

For more information contact Dr. Jim Ladlie • ProfitProAG • 507-373-2550 office • 507-383-1325 cell • jladlie@profitproag.com

"The Second Harvest"

How to Implement a Full-Circle Crop Residue Digestion and Nutrient/Energy Recycling Program

HINT:
This is the key to FENCE-LINE FARMING

- How to reduce or eliminate the use of insecticides, fungicides & herbicides
- How to maximize profitability by managing the soil microbiome & nutrient balance and availability

The take home message . . . "You're in control"
"You now have your recipe for success"

What you'll view in-field

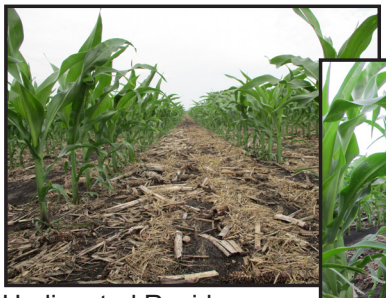
- 60" twin row crops with an interseeding of 17 species of cover crops

- Corn planted into clover

- Corn planted into rye

- 60" corn planter

- 60" corn cover crop interseeder



Undigested Residue

- Crop Residue Program

Digested Residue

Digested Residue

Undigested Residue

Fence Line Farming — It's all about Soil Health

ProfitPro®AG invites YOU to their

FREE WEBINAR

the third THURSDAY of each month.

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

It's Easy . . . It's FREE

Thursday, August 20, 2020

8:00 p.m. Central Time

UPCOMING SUBJECTS

- **Fall Crop Residue Digestion & Nutrient/Energy Recycling Program**
- **Fence-Line Farming Learn & Earn Field Event**

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

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

TO JOIN THE WEBINAR, CLICK ON THE LINK PROVIDED

Next month (Part IV) we will continue to discuss the value of adapting the Full-Circle System in crop production. Chitosan, a natural biocontrol agent for insects, diseases and nematodes will be discussed. Chitosan also triggers the SAR (System Acquired Resistance) by plants to produce its own natural compounds for natural biocontrol defense. Chitosan when applied to the foliage will improve plant health and prevent premature death of the plant. Thus creating better quality grains (high test weights) and forages (improves taste, flavor and energy).