

Ag Concepts® Circular



Success Stories: AgZyme® on Corn

We hear many stories from our dealers and growers about the success Ag Concepts® products have in the field. We enjoy hearing about the positive effects of our products on the different crops in locations all over the country and would like to share them with you. The following story comes from Mooreton, North Dakota, about the effects observed after applying **AgZyme®** on corn.

The 2009 growing season was very cold in North Dakota which made for considerably late planting times for many of the area's crops. Many corn growers had crops that were unable to reach maturity in time for harvest. The grower in this story was applying **AgZyme®** to his corn for the first time; he treated a portion of his corn field at a rate of 12.8 ounces per acre. He found that the corn treated with **AgZyme®** was the only corn that reached full maturity despite the late planting and very cold year. A green snap test was conducted on the corn and the untreated corn snapped at an 85° angle, while the treated corn snapped at a 115° angle. The grower was very pleased with the effects seen from the **AgZyme®** treatment. We were unable to get yield results because the whole field was eventually water damaged and no yield data was recorded. If you are interested in learning more about **AgZyme®** please contact Ag Concepts® at (208) 388-1131 or e-mail us at agc@agconcepts.com. Below are two photos from the grower comparing the corn treated with **AgZyme®** to corn that was left untreated.



AgZyme® treated corn has much larger cobs with greater width and length. The differences are clearly visible between treated and untreated.



Treated is on the right and untreated on the left. Notice the difference in the size and fullness of the roots. The treated corn roots have more root hairs and can grip the soil much more effectively.

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Ag Concepts® 2009 Potato Trials

Mel "Says"

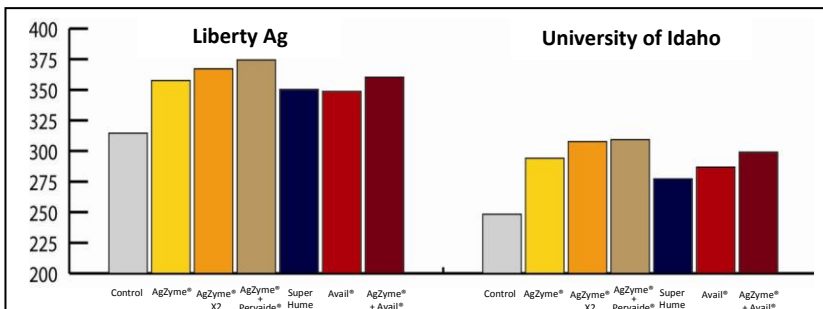


"If we can help enough people get what they want, we can get what we want."

Ag Concepts® has been testing their products for efficacy and consistency since they began manufacturing and marketing them. Each year Ag Concepts® contracts several tests with multiple testing facilities. In 2009, Ag Concepts® contracted two trials measuring the effects of **AgZyme®**, a micronutrient spray and biological growth catalyst, **Pervaide®**, a non-ionic soil penetrant, **Super Hume**, a 6% humic acid with added seaweed, and **Avail®**, a competitor's phosphorus fertilizer enhancer, on potatoes. These two trials were conducted at separate testing facilities to compare the consistency of the results from different locations. The first trial was done with Liberty Ag Research located in Preston, Idaho. The second trial was done with the University of Idaho in Aberdeen, Idaho. Ag Concepts® Corp decided to test their products against **Avail®**, the competitor's product, due to many recent claims about the products ability to increase yield and return on phosphorus investments. At Ag Concepts® they want to be able to offer their growers the best products possible and in order to do that they need to know how other products on the market are working. There was an increase in yield with all treatments over the control, in both trials. The greatest increase in yield was seen with the combination of **AgZyme®** and **Pervaide®**. Below you will find a table containing total yield data, the number of U.S. #1's with each treatment, from both trials, and the rate at which the products were applied. All treatments including control received 18 gallons 10-34-0 starter fertilizer applied with marker bar 1 day before planting, additional fertility was applied throughout the growing season. Yield data is in Cwt per Acre.

Treatment	Application Rate (Per Acre)	Liberty Ag Total Yield	U of I Total Yield	Liberty Ag U.S. #1's	U of I U.S. #1's
Control		314.5	248.4	236.4	121.6
AgZyme®	12.8 oz	357.6	294.0	272.1	152.1
AgZyme® (applied twice)	12.8 oz (twice)	367.1	307.7	289.1	170.6
AgZyme® + Pervaide®	12.8 oz + 2 qt	374.4	309.3	298.6	164.4
Super Hume	1 gal	350.3	277.2	267.2	151.9
Avail®	12.0 oz	348.7	286.8	266.3	150.0
AgZyme® + Avail®	12.8 oz + 12.0 oz	360.2	299.0	276.7	155.4

Right: Graph showing the results from Liberty Ag Research compared to the results from University of Idaho.



Key Points

- Corn residue creates patches of soil with lower temperatures and different water and nutrient content
- These conditions created by the field residue can affect root development
- AgZyme® has been proven to increase root mass for larger, stronger root systems

The following article comes from Agriculture.com. With recent trends in agriculture going to no-till, there were bound to be disadvantages discovered. We found this article so interesting because we have a product that may be able to help with the problems discussed. The key issue appears to be the lack of root development in some areas where crop residue has reduced the amount of nutrients and water available to the plant. This is a problem that AgZyme® may be able to help alleviate. AgZyme® has been proven to increase root mass and help crops to better utilize the nutrients and water already available in the soil. If you have experienced any of the issues discussed below please contact your local dealer to see if AgZyme® can help you maintain the no-till system without losing out on yield.

No-till helps bigger corn plants 'bully' others

Agriculture.com

The crop residue common in no-till corn fields helps turn bigger corn plants into bullies, new research shows. Purdue University agronomist Tony Vyn says it's been known for a long time that young corn plants are, on average, shorter in no-till, corn-on-corn fields, but that doesn't mean there is an overall stunting of growth among all plants.

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Instead, residue left over from last year's corn crop is changing soil conditions and creating a disadvantage for some plants fighting for sunlight, water and nutrients. "There is a hierarchy that is formed, even though the plants are genetically the same and should be equal in size and stature," Vyn says. "No-till corn yield reductions have little to do with an overall height reduction early in the season. They have more to do with height variability during vegetative growth." Vyn says yield losses of up to 14% can be attributed to this competition in no-till fields where corn is planted the year after corn. In those fields, the leftover corn residue creates patches of soil with lower temperatures and different water and nutrient content. Seeds planted there are at a disadvantage. "These conditions created by the field residue can affect root development," he says. "Plants that have better access to resources grow faster and then dominate their smaller neighbors." Vyn studied plant height data over 14 years and found that there were pronounced height differences among plants by four weeks. It had been thought that a no-till field situation with high residue cover and no soil loosening uniformly reduced the height of all plants because of overall cooler soil temperatures, but Vyn says significant height differences were observed from plant to plant. The negative consequences of this plant competition are exacerbated as planting density increases. "For example, competition for nitrogen increases as crowding increases," Vyn says. "The higher the density, the greater the intensity of the competition for all resources." Weather conditions, such as a lack of rainfall during a critical development period, also can affect the final yield from plants fighting for limited resources. While some plants dominate and grow to their full potential, the smaller, dominated plants decrease the field's overall yield. Vyn says growers should ensure during the previous year's harvest that residue cover will be uniform, that fields are drained adequately, that surface soil compaction is avoided and that nutrients are evenly distributed. No-till fields are desirable because they decrease the amount of nutrients running off into nearby water, but Vyn says newer tillage options, such as vertical tillage, are less disruptive than the traditional intensive tillage and could ensure more uniform conditions for seeds.

"No-till helps bigger corn plants 'bully' others." Online posting. 26 Jan. 2010. Agriculture Online. 29 Jan. 2010
<http://www.agriculture.com/ag/story.jhtml;jsessionid=LRBIDXNVMEOWACQCEARR42Q?storyid=/templatedata/ag/story/data/1264517478467.xml>.

Ag Concepts® Field Studies Publication



Ag Concepts® Corp understands the importance of manufacturing quality products that produce for growers. With many years in the industry, Ag Concepts® Corp has developed an extensive collection of data demonstrating the successful performance of its products. The company has always stressed the importance of follow up and documentation with their dealers. It is through follow up that dealers are able to ensure the products are applied correctly and document any changes that take place during the growing season.

Ag Concepts® also asks that the grower and or dealer take photos to document the differences seen in the field. Over the past several years the dealers have shared some of the photos and stories they have seen in the field. Everyone at Ag Concepts® has really enjoyed seeing the positive impact their products have on different crops and would like to share them with more growers. They asked their dealers to send them pictures from the fields with any documented differences in yield, plant health, or any other notable distinction. All of the photos received were then put into a binder and labeled as Crop Photos. The location of the crop, the product used, plus a description of the differences seen by the grower is included with the crop photos. There were also some Grower Field Trials that were submitted. Grower Field Trials are documents containing yield data and more specific information on application methods and rates of the product(s) used. Testimonials from growers who have used Ag Concepts® products and have been pleased with the results gained were also added to the binder. The binder is known as the Ag Concepts® Corp Field Studies Publication. The Field Studies Publication is intended to offer the grower a chance to see actual results from fields in their area on the same crops they may be growing. Sometimes the differences are subtle and can be measured more clearly through yield monitoring than by just looking at the field. An absence of visual difference does not mean the crop hasn't benefited from a treatment. This publication was distributed to each Ag Concepts® Dealer. If you would like to view this publication please contact your local dealer. If you are not aware of a dealer in your area please call Ag Concepts® Corp. at (208) 388-1131 and we will get you in touch with one.

Candied Walnut Gorgonzola Salad



- 1/2 cup walnut halves
- 1/4 cup sugar
- 3 cups mixed greens
- 1/2 cups dried cranberries
- 1/2 cup crumbled Gorgonzola cheese
- 1 tablespoon raspberry vinaigrette
- 1 tablespoon white vinegar
- 1 tablespoon olive oil

Directions:

- Place walnuts and sugar in a skillet over medium heat, stirring constantly until the sugar dissolves into a light brown liquid and coats the walnuts. Remove walnuts from skillet, and spread them out on a sheet of aluminum foil to cool.
- Place in a large salad bowl the mixed greens, cranberries, cheese, vinaigrette, vinegar, and olive oil. Toss gently; add candied walnuts, and toss again.

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The Bio-*Logical* Alternative®

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Get to Know the Ag Concepts® Team!



We would like to take this opportunity to share a little bit about a member of the Ag Concepts® team. This month we are featuring our Vice President, Seth Snider. Seth has been involved with Ag Concepts® since the company was founded in 1986. He started helping his father, Mel Snider, at age ten. Seth's first paying job with Ag Concepts® was unloading a box van full of 30 pound buckets of dry soluble fertilizer. The product is no longer manufactured by Ag Concepts®, and the box van has since been dismantled. Seth took some time off from unloading vans to earn his Bachelor's degree in Math from Northwest Nazarene College. Where he played forward for the college's basketball team. He then moved to Moscow where he attended the University of Idaho and received his Bachelor's in Chemical Engineering. After college Seth worked as a Sustain Engineer at Micron Technology. Seth started with Ag Concepts® full time after Micron and has been our Vice President for seven years now. The dynamic nature of the business keeps Seth busy with new challenges every day, which is what he loves most about his job. It is the engineer in him that drives his passion to find solutions to these issues that arise in day to day commerce. When not at work Seth enjoys taking to the skies in the company's four seat plane. Seth is also very interested in athletics and staying active. From skiing in winter to playing golf, softball, basketball, and flag football in the summer, he is rarely found not participating in some sort of sport or physical activity. Seth brings his team player attitude to work with him, which is what makes him such an effective leader.