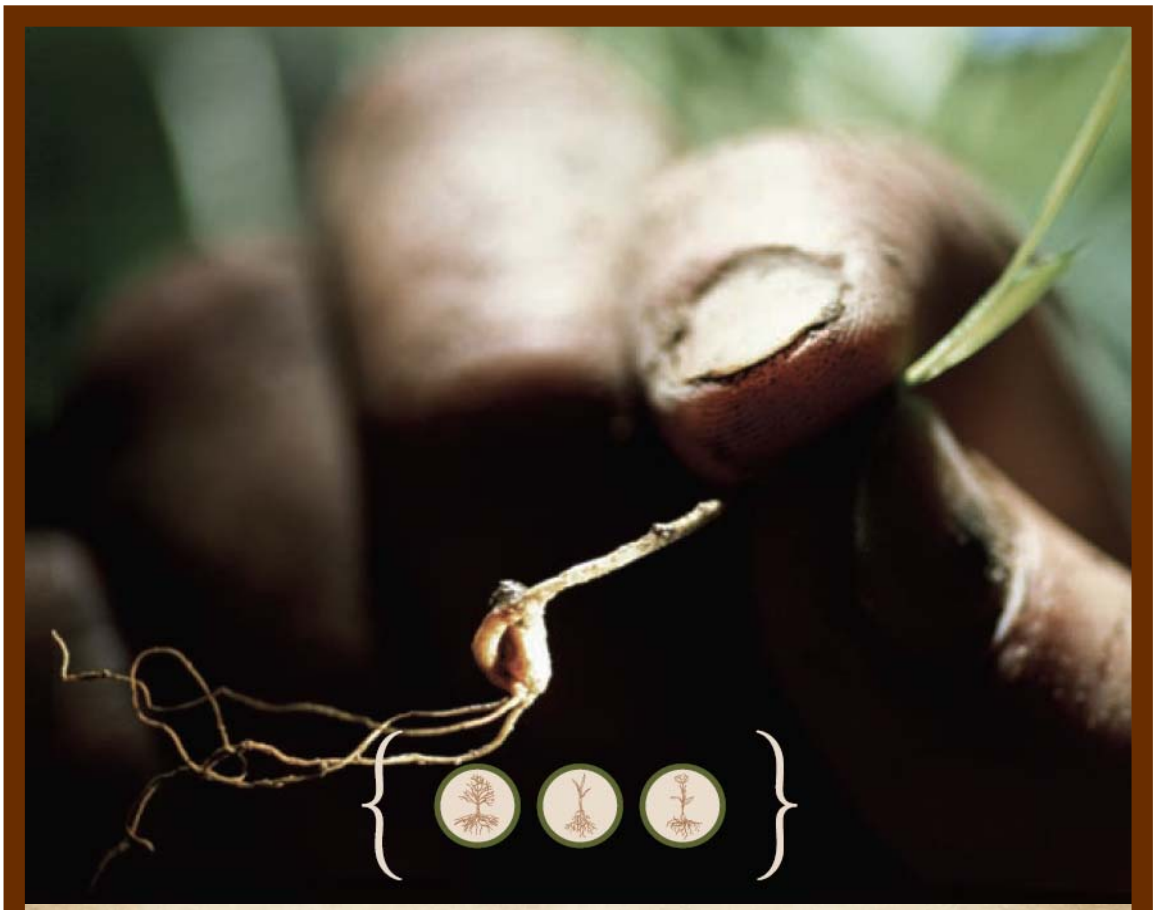

Myconate® Product Review

Plant Health Care plc

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Summary of **Myconate®** Product **Development**

Since its establishment, Plant Health Care (PHC) has focused on developing solutions *rooted in nature* for yield enhancement of agricultural crops. The resulting Myconate® technology helps crops to develop larger root mass, so that they can repel pests and prosper under growing conditions that normally inhibit growth.

The basic efficacy of Myconate® in improving the yields of the world's major agricultural crops has been established in a large number of trials around the world. Highlights of the Myconate® test and trial program include:

- **average corn yield increases of 9%** over the control plots in 60 corn trials representing hundreds of replications
- **average soybean yield increases of 13%** over the control plots in 21 soybean trials representing hundreds of replications
- **reliable yield increases** in 8 other major crops, including the important cotton crop
- **application methods are versatile** and Myconate® can effectively be applied as both a seed coating and tank mixed with fertilizer
- **seed germination and stand density are indifferent** to Myconate® application
- Myconate® **increased mycorrhizal colonization of roots** by over 50%, aiding to their early-stage plant growth.

In 2005 PHC conducted an extensive series of trials to further its knowledge of a number of variables in the process and to extend the range of geographical and crop settings. Such tests have the added benefit of promoting the name Myconate® into a wider range of markets ahead of commercial rollout.

A New Tool for **Maximizing Yields** and **Managing** Crop **Stress**

Farmers worldwide continually strive to optimize the productivity of their land. Even in profitable operations, farmers continually seek per acre yield increases of as little as 2% or less in order to remain competitive. In marginal settings or during years of poor growing conditions, yield increases can be the difference between profit and loss for the season. To that end, farmers frequently invest in technologies which serve as insurance, but which also pay dividends in yields or product quality.

Myconate® technology has been shown to significantly increase the economic yield of major agronomic crops, including corn, cotton, soybeans, edible legumes, and potatoes. These positive benefits are especially significant under conditions which normally limit production. Most notable are drought, micronutrient deficiency, insoluble phosphates, pesticide or herbicide residues and soil salinity.

Myconate® Rooted in **Research**

Researchers suspected for many decades that the fine roots of plants elicit a chemical exudate, a chemical signal, which attracts vesicular arbuscular mycorrhizal (VAM) fungi to the root. Once on the root, the chemical signal causes an increase in the rate of fungal colonization of the root. In the 1980's, this exudate was extracted and identified from white clover roots by scientists at Michigan State University, East Lansing, MI and in Brazil. Chemically it was identified as the isoflavanone, *Formononetin*.

Researchers then developed chemical methods to synthesize two forms of *Formononetin* in large quantities – Mycoform®, a water insoluble formulation and Myconate®, a water soluble potassium salt. The first patent involving this technology was issued in the United States in 1991. Subsequent technology improvement patents were also obtained in Africa, Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Denmark, Finland, France, Germany, Greece, Hungary, India, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, Spain, South Africa, Sweden, Switzerland, Taiwan, UK, Ukraine, and the United States.

Continuing **Partnerships** - Paths to **Commercialization**

The company is pursuing several concurrent paths to commercialize Myconate®. These paths include working with the world's leading agri-chemical companies, extensive product testing with seed companies, and the development of a distribution network to supply Myconate® directly to the farm end-user.

Agri-chemical companies

A significant opportunity presented by Myconate®'s versatility in application is its ability to grow with the current expansion of the seed coating industry. To this end, PHC continues to work with and pursue the world's major agri-chemical companies. 2005 concludes the first year of collaborating with the top three companies in the seed treatment industry. In accordance with the product evaluation agreements between PHC and these companies, details of the evaluations cannot be publicly disclosed. All three companies involved with the initial product testing are continuing their evaluation programs in 2006.

Seed companies

All of the company's current testing partners, the largest in the industry, as well as several new seed companies will be initiating the next series of product evaluation trials in 2006. PHC is also in discussion with several regional seed companies, who have had great successes with the product, about commercially launching Myconate® coated seed in 2006.

Polymer coated corn seed

Independent product distribution

PHC is opening test markets in the United States to introduce a fertilizer-compatible Myconate® product. This product will be sold to farm end-users through commercial distributors. This product provides PHC a market entry point independent of the agri-chemical and seed companies.

Myconate® can be applied directly to the seed bed through tractor-mounted fertilizer systems. Using this application method, Myconate® can be sold directly to the farm-end user through commercial distributors.

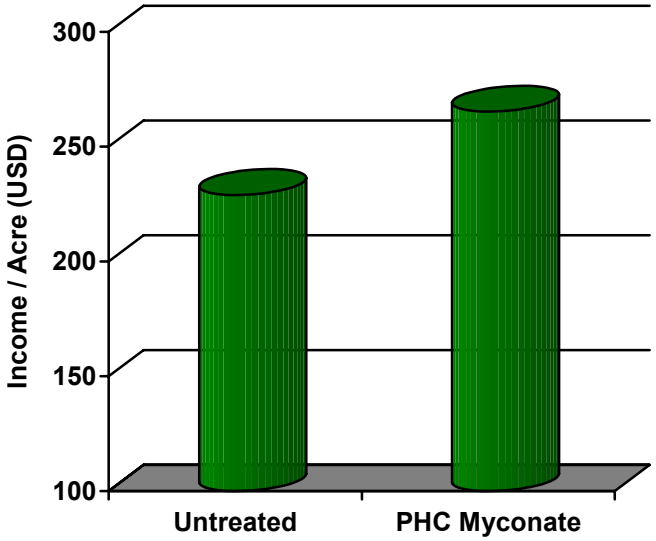
Increased Income from **Myconate®** Usage

Even modest yield increases can provide a return on investment from the use of Myconate®. Farmers and agribusinesses are constantly looking for ways to increase yields. Continuous improvements in seed genetics, crop inputs, and farming practices have pushed yields to record highs.

The returns generated by using Myconate® are most easily demonstrated by looking at yield data.

2005 results from a corn trial in Pontiac, IN resulted in a 19 bushel increase in yield per acre. Even at relatively low grain prices, this productivity increase results in a favorable return for the farmer.

2005 results from a soybean trial in Atlanta, IN resulted in a modest increase of 2.3 bushel increase in yield per acre on top of a near-record yield of 63.3 bushels per acre. Even at these extremely high yield levels, Myconate® provides an additional income of $11.50 per acre as a result of increased productivity.



An investment of $8.50 per acre for the Myconate® application yielded an increase of 19 bushels per acre. At $1.95 per bushel, the Myconate® application netted this farmer an additional $26.77 of income per acre, a 16% increase

Myconate® Trial Variables

In 2005 Plant Health Care (PHC) set out to expand the parameters of prior Myconate® research by exploring for four different variables - application method, shelf life, weather, and crop specificity.

Application method

Myconate® adheres to treated seed with a polymer coating. In certain instances, several layers of polymer are applied to attach a variety of coatings to the seed. Tests have concluded that Myconate® remains effective even with multiple polymer layers.

In 2005 PHC proved through laboratory and field applications that Myconate® can be successfully applied in combination with the application of liquid fertilizer.

In California field trials Myconate® was successfully tank mixed with fertilizer and applied through a drip irrigation system.

In laboratory tests Myconate® proved compatible with liquid fertilizers and remained evenly distributed in the mixture. On the basis of these tests PHC will be launching its first Myconate® product for use with starter fertilizers in tests markets in 2006.

Myconate® Shelf Life

Myconate® is tested every 6 months to verify its chemical composition. Through careful evaluation and testing it now appears that after significant exposure to air, humidity, and varying temperatures Myconate® experiences chemical degradation of its active ingredient.

In situations where degraded Myconate® was incorporated into the testing procedures, crops yielded inconclusive or insignificant yield increase. Dramatic visual and solubility differences are apparent between Myconate® stored under various environmental conditions.

As a result of this testing, extensive material handling protocols have been developed to ensure maximum shelf life for the product.

Weather and Maximum Genetic Potential

Extreme weather conditions play a major role in agricultural production. Several trials in 2005 did not reach maturity because they were destroyed by weather events such as hail and hurricanes.

As expected, in several tests, growing conditions were so ideal the control crop exceeded its traditional yields by such significant amounts the plants came close to achieving their genetic potential. At that point, incremental yield increases due to Myconate® were almost impossible to realize.

Crop Specificity

After twelve years and hundreds of tests it has been determined that while all crops tested show some responsiveness to Myconate®, corn and soybeans demonstrate the greatest mycorrhizal response from Myconate® treatment.

FIELD CORN

Significant research exploring the effects of Myconate® has been conducted on corn throughout the world. Since 1992, over 50 product trials have occurred in eleven different countries. These studies include results from university-sponsored research, independent agricultural research companies, and practical on-farm evaluations. While yield advantage has been the major focus of past research, the company extended the testing variables in 2005 to evaluate practical conditions such as those mentioned in the earlier section.

The following table summarizes the company's findings to date. When available, results noted with (NS) indicate trials that produced yield increases for the farmer, but were not statistically significant.

Myconate® Corn Trials

Year	Location	Yield Advantage	Increase over Control
2005	Pommeraud, France	+ 22 bu/ac	+ 19%
		+ 9 bu/ac	+9%
		+9 bu/ac	+10%
2005	Hamon, France	+ 21 bu/ac	+ 17%
		+11 bu/ac	+8%
		+16 bu/ac	+11%
2005	Masset, France	+ 21 bu/ac	+ 21%
		+19 bu/ac	+20%
		+13 bu/ac	+17%
2005	Atlanta, IN	+5 bu/ac	+2%
2005	Pontiac, IL	+19 bu/ac	+16%
2005	Average Across Ten Locations Midwest U.S.	0 bu/ac	0%
2005	Toluca, Mexico	+ 40 bu/ac	+37%
2005	Centre Co., PA	0 bu/ac	0%
2005	Lancaster Co., PA	+2 bu/ac	+1% (NS)
		+8 bu/ac	+5% (NS)
2005	Adelphia, NJ	+7 bu/ac	+4%
		0 bu/ac	0%
2005	Madera, CA	0 bu/ac	0%
2005	Tifton, GA	+3 bu/ac	+2% (NS)
		+6 bu/ac	+4% (NS)
2005	Julesburg, CO	0 bu/ac	0%
2005	Wisconsin	0 bu/ac	0%
2005	Istanbul, Turkey	+9 bu/ac	+5%
2004	Sheridan, IN	+40 bu/ac	+25%
2004	Atlanta, IN	+8 bu/ac	+4%
		+18 bu/ac	+8%
2002	Owosso, MI	+7 bu/ac	+8%
		+14 bu/ac	+10%
2002	Avon, IL	+15 bu/ac	+8%
2002	Champaign, IL	+9 bu/ac	+5%

Myconate® Corn Trials - continued

Year	Location	Yield Advantage	Increase over Control
2002	Calhoun, KY	+13 bu/ac	+12%
2002	Scandia, KS	+21 bu/ac	+11%
2001	Borek Strzelinski, Poland	+35 bu/ac	+ 20%
2000	Howe, IN	+23 bu/ac	+13%
2000	Alma, MI	+43 bu/ac	+27%
1999	Girard, MI	+10 bu/ac	+8%
		+13 bu/ac	+10%
1998	Girard, MI	+7 bu/ac	+8%
		+ 4 bu/ac	+3%
1998	St. Johns, MI	-	+ 22%
		-	+18%
1998	Jabalpur, India	-	+27%
1998	Sehore, India	-	+5%
1998	Gwalior, India	-	+48%
1998	Brazil	-	+20%
1997	Chindwara, India	-	+7%
1997	Sehore, India	-	+3%
1997	Jabalpur, India	-	+27%
1993	Iowa State University	+13 bu/ac	+11%
1992	Brazil	+13 bu/ac	+24%

In 2005, 763 million tons of corn was produced worldwide on 363 million acres. The United States was the largest corn producer accounting for 40% of world production.

In general, yields around the world fluctuate due to variable growing conditions and the intensity of crop management. The world average yield in 2005 was 77 bushels per acre. Average yields in the United States were approximately 146 bushels per acre while yields in Africa barely reached 27 bushels per acre.

SOYBEAN

Since 1997, over 20 product trials have been conducted on soybeans in three different countries. As with the corn trials, studies include results from university-sponsored research, independent agricultural research companies, and practical on-farm evaluations.

In 2005, 230 million tons of soybeans were produced worldwide on 225 million acres. The United States and Brazil combined to produce 63% of the world's soybeans in 2005.

The world average yield in 2005 was 34 bushels per acre. Yields in the United States and Brazil averaged 42 and 32 bushels per acre respectively while yields in Africa average 12 bushels per acre.

Myconate® Soybean Trials

Year	Location	Yield Advantage	Increase over Control
2005	Atlanta, IN	+ 3 bu/ac	+ 6%
		+ 3 bu/ac	+6%
		+2 bu/ac	+3%
		+7 bu/ac	+14%
2005	Yuma Co., CO	0 bu/ac	0%
2004	Sheridan, IN	+6 bu/ac	+40%
		0 bu/ac	0%
2004	Atlanta, IN	+2 bu/ac	+3%
2002	Yuma Co., CO	+6 bu/ac	+21%
2002	Rocky Ford, CO	+7 bu/ac	+10%
2002	Audobon, IA	+5 bu/ac	+7%
1999	Tipton, IN	+6 bu/ac	+18%
		+17 bu/ac	+50%
		+4 bu/ac	+12%
1999	Brazil	-	+16%
		-	+14%
		-	+18%
		-	+18%
1997	Purdue University	+2 bu/ac	+8%
		+2 bu/ac	+6%
		+2 bu/ac	+7%

Myconate® Testing in Additional Markets

There are very few economically significant crops that do not respond to colonization of mycorrhizal fungi stimulated by Myconate®. Myconate® is compatible with all of the major grain, forage, oil, vegetable, and fiber crops. This broad-spectrum use makes most any crop a potential market for Myconate®.

Myconate® Dry Bean Trial

Year	Location	Yield Advantage	Increase over Control
2005	Burlington, CO	0 lbs/ac	0%
2005	Haxtun, CO	+ 129 lbs/ac	+6%
2002	St. Johns, MI	+190 lbs/ac	+18%
2002	Fruita, CO	+ 397 lbs/ac	+22%

Myconate® Sunflower Trials

Year	Location	Yield Advantage	Increase over Control
2005	Indalia, CO	+ 231 lbs/ac	+9%
2005	Akron, CO	0 lbs/ac	0%

Myconate® Cotton Trials

Year	Location	Yield Advantage	Increase over Control
2005	Corcoran, CA	0 lbs/ac	0%
2005	Madera, CA	0 lbs/ac	0%
2005	Four Locations Across U.S. Cotton Belt	0 lbs/ac	0%
2005	Auburn University	0 lbs/ac	0%
		+148 lbs/ac	+4% (NS)
2005	Istanbul, Turkey	+106 lbs/ac	+3%
2002	University of California, Davis	-	+ 5%
		-	+ 5%
		-	+ 8%
		-	+ 0%
		-	+ 0%
		-	+22%

Cotton proved to be a particularly challenging crop for the company's 2005 Myconate® testing program. Three large-scale farm trials were destroyed by early hail storms in the southern United States. In addition, analysis of the trial results revealed the degraded Myconate® was not effective in overcoming possible inhibition of mycorrhizal colonization from the broad-spectrum fungicide Baytan, which is still in use as a cotton seed treatment. While such older-generation fungicides can inhibit mycorrhizal fungal activity, the company is confident that applications of chemically-stable Myconate® will produce results consistent with prior research.

Myconate® Process Tomato Trial

Year	Location	Yield Advantage	Increase over Control
2005	Woodland, CA	0 lbs/ac	0%
2005	Woodland, CA	+ 2 lbs/plot	+18%
2005	Woodland, CA	+2 lbs/plot	+18%
2005	Istanbul, Turkey	+178 lbs/ac	+2%

2005 research on process tomatoes included both controlled trials and practical, on-farm observation plots. Myconate® was delivered in solution through drip irrigation in California. Seedling plugs were dipped in a Myconate® solution for the trial in Turkey.

Myconate® being applied to tomatoes through a drip irrigation system

Several on-farm trials initiated in 2005 were compromised due to crop management decisions of our research cooperators. Other 2005 results are delayed due to variations in planting and harvest dates throughout the world. The following chart summarizes the trials that didn't produce any useable data and trials still in progress from the 2005 testing program.

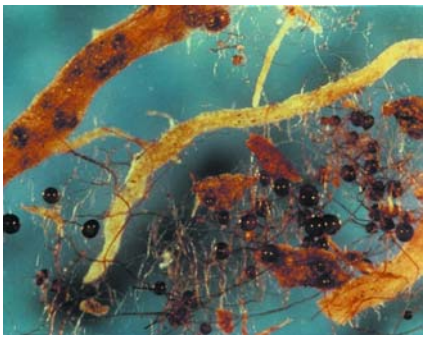
On-going and Incomplete Trials

Crop	Location	Trial Status
Cotton	Three farm locations - Texas	Abandoned due to severe hail damage
Sweet Corn	Two seed companies - United Kingdom	Both companies report positive results, but will not disclose their findings. Each has committed to additional testing in 2006
Lima Beans	United Kingdom	Crop abandoned
Barley	United Kingdom	Crop harvested without recording yield data
Corn	Zambia	Crop planted in late 2005. Data available spring 2006.
Corn	South Africa	Data not yet released by research cooperator
		Research plot not taken to harvest

Root mass measurements on corn seedlings in South Africa. Myconate® treated plants show increased early root development.

VA Mycorrhizal **Fungi Colonization** Assessments

Even when high concentrations of VAM fungi are present, Myconate® can induce increased fungal colonization. When used in VAM depleted agricultural soils, the results are even more dramatic. Increased VAM colonization early in the plant's life cycle significantly contributes to increased root mass and subsequent crop yield increases.



VAM fungi colonizing plant roots

PHC researchers have studied the effects of different rates of Myconate® on VAM colonization of various economically important crops. In these test, treated and untreated seeds are planted in soil pre-inoculated with VAM fungi.

VAM Inoculated Cotton Seed - 2004

Treatment	Percent of roots colonized in 8 weeks
0 mg / seed	36%
1 mg / seed	46%
2 mg / seed	50%

VAM Inoculated Corn Seed - 2004

Treatment	Percent of roots colonized in 8 weeks
0 mg / seed	22%
1 mg / seed	40%

Seed **Germination** and Stand **Establishment**

A key determining factor in seed coating formulations is seed germination response. Any product that inhibits seed germination will not be accepted in the market. Recent tests demonstrate that Myconate® has a neutral effect on seed germination and stand establishment. The following table summarizes stand establishment observations from the 2005 trial program.

Average Stand Establishment - 2005

Crop	Treatment	Stand Density (plants/acre)
Corn	Myconate® Rate 1	27,500
	Myconate® Rate 2	27,333
	Untreated	27,833
Soybean	Myconate®	142,918
	Untreated	130,473
Cotton	Myconate® Rate 1	77*
	Myconate® Rate 2	78*
	Untreated	79*

**Cotton stand density is expressed as a percentage of total stand establishment*