

# Technical Data Report

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## Results of Nutriplant SD<sup>®</sup> and Nutriplant AG<sup>®</sup> on Soybeans

### Objective

To evaluate the effects of Nutriplant SD and Nutriplant AG on production of soybeans.

### Location

Trials were conducted at the independently owned and operated agricultural research facility, Irrigation Research Foundation (IRF) at Yuma, Colorado in cooperation with ColoradoState University.

### Materials and Methods

Effects of Nutriplant SD on soybeans were evaluated in 1999 and 2002 through 2004. Nutriplant AG was evaluated in 1999 and in 2005. Nutriplant SD and Nutriplant AG products were supplied by Cytozyme Laboratories, Inc., USA. Nutriplant SD was applied to the seed at 4 oz/100 lb (2.5 g/kg) of seed. Seeds were thoroughly mixed with the product to obtain a uniform coating. Nutriplant AG was applied at 16 fl oz/acre (1 liter/ha) at pre-bloom stage. Cultural practices, including fertilization, irrigation and pest management followed local practices and were the same for treated and untreated plots. Soybean yields were determined at harvest.

### Results

Nutriplant SD consistently increased soybean yields each year (Table 1). Increases ranged from 1.1 to 3.7 bu/a (74 to 249 kg/ha). The average increase over the four years was 2.6 bu/a (177 kg/ha) or 4.9%.

Table 1 . Results of Nutriplant SD on Soybean Yields. Irrigation Research Foundation, Yuma, Colorado, USA.

Year	Grain Yields						
	Control		Nutriplant SD		Difference		Difference
	(bu/a)	(kg/ha)	(bu/a)	(kg/ha)	(bu/a)	(kg/ha)	(%)
1999	52.1	3,512	54.7	3,687	2.6	175	5.0
2002	66.6	4,490	67.7	4,564	1.1	74	1.7
2003	63.0	4,247	66.7	4,496	3.7	249	5.9
2004	43.6	2,939	46.7	3,148	3.1	209	7.1

Nutriplant AG consistently increased soybean yields each year (Table 2). In 1999, the increase over the control was 1 bu/a (67 kg/ha) and in 2005, 4.5 bu/a (303 kg/ha). The average yield increase for the two years was 4.6%.

Table 2. Results of Nutriplant AG on soybean yields. Irrigation Research Foundation, Yuma, Colorado, USA.

Year	Grain Yields						
	Control		Nutriplant AG		Difference		Difference
	(bu/a)	(kg/ha)	(bu/a)	(kg/ha)	(bu/a)	(kg/ha)	(%)
1999	52.1	3,512	53.1	3,579	1.0	67	1.9
2005	62.7	4,227	67.2	4,530	4.5	303	7.2

### Economic Benefit

The increase in farm income from the use of Nutriplant SD ranged from \$14.85 to \$49.95/acre (\$37.00 to \$124.50/ha), based on an on-farm price of \$13.50/bu (\$0.50/kg) of soybeans\*.

The increase in farm income from the use of Nutriplant AG ranged from \$13.50 to \$60.75/acre (\$33.50 to \$151.50/ha) based on an on-farm price of \$13.50/bu (\$0.50/kg) of soybeans\*.

\* Source: USDA, NASS June 2008

### Conclusions

1. Nutriplant SD increased soybean yields by an average of 4.9% compared to untreated control.
2. Nutriplant AG increased soybean yields by an average of 4.6% compared to untreated control.