

# Technical Data Report

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## Evaluation of NUTRIPLANT™ SL Applied In-furrow on Production of Dryland Corn

### Objective

The objective of the study was to determine the effect of Nutriplant SL applied in furrow on production of dryland corn.

### Materials and Methods

The field trial was conducted on dryland corn (*Zea mays* L., var. Golden Harvest G01P52-3011A) at the independently owned and operated agricultural research facility, Irrigation Research Foundation (IRF) at Yuma, Colorado, USA under the supervision of Colorado State University in 2015. Two uniform plots were selected for this trial. Two treatments were tested: 1) Untreated control without starter fertilizer and 2) Nutriplant SL at 0.6 l/ha (8 fl oz/acre) with 37 l/ha (4 gal/acre) of water applied in-furrow at planting. Corn was planted at 37,050 seeds/ha (15,000 seeds/acre) on 23 April. Humalfa compost was spread at 6.7 t/ha (3 tons/acre) on 12 March. On 24 March, 17-8-1-4.8S fertilizer was applied at 94 l/ha (10 gal/acre) 10 cm (4 inch) deep and 122 l/ha (13 gal/acre) 25 cm (10 inch) deep on 24 March. Weed control included application of Lumax EZ at 6.3 l/ha (2.7 qt/acre) with Touchdown Total at 2.3 l/ha (32 fl oz/acre) and Ammonium-sulfate (AMS) at 0.25 l/100 l (1 qt/100 gal) of water and nonionic surfactant (NIS) at 0.25 l/100 l (1 qt/100 gal) of water on 24 April and Status at 0.42 kg/ha (6 oz/acre) with Roundup WeatherMax at 2.3 l/ha (32 fl oz/acre) and AMS at 0.25 l/100 l (1 qt/100 gal) and NIS at 0.25 l/100 l (1 qt/100 gal) of water on 22 June. The crop received 39.0 cm (15.37 inches) of rainfall during the season. Other cultural practices followed local practices and were the same for treated and control plots. Corn was harvested on 22 September and yield was determined and adjusted to 15.5% moisture.

### Results

Application of seed treatment improved corn yields (Table 1). Nutriplant SL applied at 0.6 l/ha (8 fl oz/acre) in-furrow at planting without starter fertilizer increased yields by 583 kg/ha (9.3 bu/acre) compared to control without starter fertilizer alone.

Table 1. Effects of Nutriplant SL on dryland corn yields. Irrigation Research Foundation, Yuma, Colorado, USA.

| Treatment   | Corn Yield |            | Difference |           | Difference (%) |
|---|------------|------------|------------|-----------|----------------|
|   | (kg/ha)    | (bu*/acre) | (kg/ha)    | (bu/acre) |                |
| Control without starter fertilizer  | 4,152      | 66.2       | -          | -         | -              |
| Nutriplant SL at 0.6 l/ha (8 fl oz/acre) in-furrow at planting without starter fertilizer | 4,735      | 75.5       | 583        | 9.3       | 14.0           |

\*One bushel (bu) of corn equals 56 lb at 15.5% grain moisture

### Conclusions

Compared to the control without starter fertilizer, application of Nutriplant SL applied at 0.6 l/ha (8 fl

oz/acre) in-furrow without starter improved yields by 14% under dryland conditions.