

## **ALFALFA - PREPLANT**

### General Information

GENERAL INFORMATION: Black Acid 16/21 Zn is designed to be applied to soil with elevated pH, high lime content and provides an acidic form of stable Nitrogen and Phosphorus for improved availability in certain soils. Reducing pH in high pH soils may improve nutrient availability, reduce soil crusting and improve water infiltration.

Each gallon of Black Acid 16/21 Zn contains 1.07 lbs of Nitrogen, as Urea, 0.67 lbs of Nitrogen as Ammoniacal Nitrogen, 1.50 lbs of P<sub>2</sub>O<sub>5</sub> in polyphosphate form, 0.81 lbs of P<sub>2</sub>O<sub>5</sub> in orthophosphate form, 0.35 lbs of Sulfur, and 0.06 lbs of Zinc as Zinc Sulfate and Zinc Citrate, and also contains 3% (by volume) Source to Source's Acid Blendable Humic Acid (A.B.H.A.). It is not recommended for use as a foliar material. This product is intended to be a supplement to a fertility program. Always monitor crop nutrient needs and responses with a soil, leaf tissue and irrigation water analysis program.

SOIL APPLICATIONS: Black Acid 16/21 Zn can be soil applied via mechanical application through direct spray or injection to the soil. Apply in a uniform manner that avoids droplets coming into contact with living tissue to avoid unintentional crop damage. It is not recommended in applications where material will come into direct contact with seeds or young roots in its concentrated form. Use acid compatible storage and equipment (see precautions). Use caution when applying in soils with a pH lower than 7.0. High application rates of Black Acid products in base or acidic soils may cause over-acidification.

### Soil Application Directions for Row Crops or Vegetables

- Pre plant: Apply broadcast or band directly over listed beds. Incorporate with tillage or irrigation prior to worker re-entry. Pre plant injections directly into the bed can be made if the band is located a safe distance from the seed. This material is not recommended for pop up applications, or any applications where product comes in contact with the seed or emerging seedlings.

- Side dress or in-furrow: This material can be side dressed into bed or sprayed into furrow. Incorporate with tillage or irrigation prior to worker re-entry.

#### Soil Application Directions for Trees & Vines

- Pre plant: Spray in concentrated band down the planting line. Incorporate with tillage or irrigation prior to planting and/or worker re-entry.

- Existing trees or vines: Band spray or shank application into the soil at or near dripline of the tree or in furrow for flood or furrow irrigated trees or vines. Incorporate with tillage or irrigation prior to worker re-entry.

WATER RUN: Black Acid 16/21 Zn may be water run through furrow or flood irrigation. Add at a point in the system that has adequate water turbulence so as to permit complete mixing with the irrigation water prior to contacting any concrete or steel irrigation system components. This material is heavier than water and can ribbon out in slowly moving streams of water. Do not apply through sprinklers after the crop is planted. Avoid applications that acidify irrigation water below 6.0 pH for prolonged periods of time. Applications where the pH is allowed to drop below a 6.0 (to a 3.0 - 4.0) is ok, but for no more than 15 minutes. When applying this material via a fertigation system, continue to operate the system 30-60 minutes after material has been completely injected to flush clean water through the system. Verify compatibility of all system components with acid fertilizers. SEE COMPATIBILITY AND PRECAUTIONS PRIOR TO USE

#### Limitations, Restrictions, and Exceptions

##### ALFALFA:

PRE PLANT: At pre plant, apply 5-20 gallons of Black Acid 16/21 Zn per acre. Incorporate with tillage or irrigation prior to planting and /or worker re-entry. Each gallon of Black Acid 16/21 Zn contains 1.74 lbs of Nitrogen.

##### Method

[Soil incorporation](#)

##### Rates

[field rates 0](#)

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##### Timings

## Preplant