

Black Label[®] Zn

REVITALIZING PHOSPHORUS AVAILABILITY



Loveland
PRODUCTS

BLACK LABEL ZN is a phosphate (P) fertilizer formulated to increase foliar absorption and protect phosphate in the soil, making it more efficient than other phosphates. **BLACK LABEL ZN** is a leading product for progressive growers who want more phosphate available to their crop.

FEATURES

- High analysis phosphate source
- Improved phosphorus availability and mobility
- Added zinc for improved phosphorus assimilation
- Low salt index and chloride free formulation
- Compatible with most fertilizers and crop protection products

BENEFITS

- Application flexibility allowing for phosphorus availability at any crop stage
- Increased yield and maturity gains
- High crop safety rating

BLACK LABEL ZN on canola



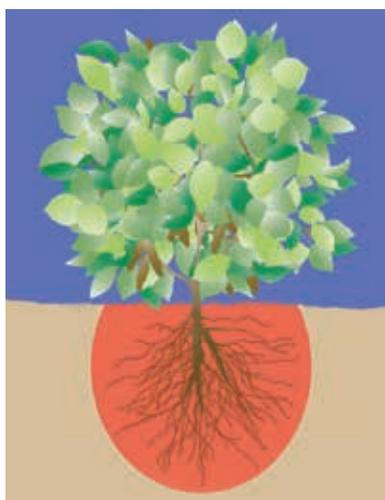
BLACK LABEL ZN applied at 3L/ac (left) vs untreated (right). Results shown are 30 days after application.

BLACK LABEL ZN on wheat



BLACK LABEL ZN applied at 4L/ac plus herbicide (left) vs herbicide-only (right). Results shown are 14 days after application.

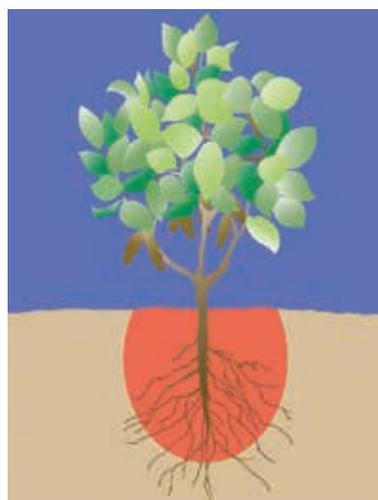
BLACK LABEL ZN advantage



When 100 lbs. of P_2O_5 is applied:

- Uptake at root level is 60% effective
- 32.35 lbs. of P_2O_5 is found in the plant

Conventional phosphate technology



When 100 lbs. of P_2O_5 is applied:

- Uptake at root level is 15-20% effective
- 17.5 lbs. of P_2O_5 is found in the plant

BLACK LABEL ZN FOLIAR APPLICATION RATES

Crop	Minimum Rate	Timing of Application
Canola	4L	5-leaf or greater (last-pass herbicide)
Canola	2L + 2L	Split application (last-pass herbicide/fungicide)
Cereals (wheat, barley, oats)	4L	Min. 5-leaf (post-emergent herbicide)
Cereals (wheat, barley, oats)	2L + 2L	Split application (min. 5-leaf with post-emergent herbicide) & early-flag to early anthesis (with fungicide)
Pulses (field peas, soybeans, chickpeas, lentils, dry beans)	4L	Early reproductive – flower buds present to early podding (with fungicide)
Pulses (field peas, soybeans, chickpeas, lentils, dry beans)	2L + 2L	Split application – at vegetative (with last-pass herbicide) & at early reproductive (flower buds present to very early podding)
Forage (alfalfa or mixed alfalfa/ grass stands)	4L or 4L sequential	First application upon spring green-up. Subsequent application with regrowth after first cut.
Winter wheat, grass seed (fescues, perennial rye grass, etc.)	4L	5-10 cm tall (with last-pass herbicide)
Flax	4L	With significant new spring growth (with last-pass herbicide)
Flax	2L + 2L	Split application – 5-10 cm tall (with last-pass herbicide) & at early flower (with fungicide)
Corn	4L	Growth stage V3-V4 (with herbicide)

BLACK LABEL ZN SOIL-APPLIED APPLICATIONS (Applied in-furrow; alone or with another seed-safe product, or side-banded)

Crop	Minimum Rate	Timing of Application
Corn	8L	In-furrow at seeding
Canola	8L	In-furrow at seeding
Cereals (wheat, barley, oats)	8L	In-furrow at seeding
Potatoes	Minimum 20L/ acre (consult with LPI or Actagro representative on specific recommendations for potatoes)	

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BLACK LABEL ZN USER GUIDE

BLACK LABEL ZN is formulated with a differentiated Humic Substance to provide a more mobile phosphate that does not tie up in soil, and increases foliar absorption. **BLACK LABEL ZN** requires specific handling and use precautions in order to achieve maximum benefits from the Humic Substances. Please follow the guide listed below to ensure ease of use and positive product experience.

Handling BLACK LABEL ZN*

BULK PRODUCT

When handling bulk product (15,000 L+), filter **BLACK LABEL ZN** using an in-line T or Y filter with an 80 mesh screen size as it comes off the tanker truck prior to storing and again from storage into the nurse truck or tank on seeding unit.

Agitate or re-circulate **BLACK LABEL ZN** every two weeks to avoid product settling. For storage tanks with one outlet, pump the product out of the tank into a nurse truck or empty tank. Deliver the product back in to the tank. This can be achieved by using the same hose, or set up an additional hose at the top.

TOTES AND DRUMS

Totes and drums need to be filtered when drawing product. Use an in-line T or Y filter with an 80 mesh screen size. A 2" or 3" diameter filter body is recommended. 3" filters can be reduced down to fit smaller diameter hoses. Position the filter before the pump in your system.

Agitate or re-circulate **BLACK LABEL ZN** prior to use to avoid product settling. Pull out of the bottom of the tote/drum and back through the top with transfer pump.

*In order to prevent plugged fertilizer orifices, ensure proper re-circulation of **BLACK LABEL ZN** prior to use.

Mixing BLACK LABEL ZN

COMPATIBILITY WITH FERTILIZERS

BLACK LABEL ZN is compatible with all commonly used liquid macro fertilizers (28-0-0, 10-34-0, 15-0-0-20, 3-10-10, Ortho Phosphates). Do not mix with sulfuric acid or any fertilizer containing calcium, (i.e. Calcium Nitrate). When mixing with micronutrient products, use high quality, fully-sequestered/chelated formulations such as *Loveland's Signature Micros* or *Acetate EDTA* micros.

COMPATIBILITY WITH PESTICIDES

BLACK LABEL ZN has a wide range of tank-mix partners; please consult label or Loveland/Actagro representative for specifications. When blending with other tank mixes it is good practice to do a jar test verifying compatibility.

Application and Equipment Recommendations

FERTILIZER PUMPS

Centrifugal and diaphragm pumps are recommended; roller pumps are not. Operators should turn off the fertilizer pump on the planter or drill while travelling between fields.

SEEDING EQUIPMENT

Seeding unit should have a 2" main-line filter installed with a 40-50 size mesh screen. Never run a pressure of more than 20 PSI with **BLACK LABEL ZN**. If pump pressure exceeds 20 PSI to reach target application rate, increase orifice size.

APPLYING BLACK LABEL ZN IN-FURROW WITHOUT OTHER FERTILIZERS

In cold spring conditions it is important that product does not freeze. In cool conditions **BLACK LABEL ZN** will flow slowly; therefore dilute with water by 50% v/v.

BLACK LABEL ZN APPLIED IN-FURROW BLENDED WITH OTHER FERTILIZER(S)

For better flowability characteristics when the product is cold and in low volume situations, the total solution should be a minimum of a 1:1 ratio with other fertilizers and **BLACK LABEL ZN**.

BROADCAST SPRAY APPLICATION

Field sprayer should be outfitted with inline filters of 50-60 mesh, and removing the nozzle screens if 100 mesh or finer. When putting **BLACK LABEL ZN** through nozzles outfitted with the *AIM Command* spray system do not run pressures greater than 40 PSI and reduce travel speed of the sprayer. Apply with 10 gallons water per acre.

Overwinter Carryover of BLACK LABEL ZN

BLACK LABEL ZN is not recommended for overwinter storage as the product cannot freeze. If heated storage is available, the product has a shelf life of two years. Agitate and filter overwintered product using 40-50 size mesh screen before use.

Please contact your Loveland or Actagro representative with questions or concerns.