

# Why should you switch from 10-34-0 to Monty's 9-24-3?

**10-34-0...** Is a 65% Poly and 35% Ortho mix. It is a very high salt and corrosive product, delivering a minimal amount of phosphorus to the young plant, early in its growth. It is applied mainly 2x2, making it even less available to the plant.

**9-24-3...** is 90% Orthophosphate and 10% Poly. It can be applied with Liquid Nitrogen. It is used in the row on the seed delivering the highest levels of available phosphate to the seed and plant, early in its growth when it needs it the most. 90% Orthophosphate is a low salt product, making it much safer for in-furrow placement.

## Advantages of Monty's 9-24-3:

**\*\* Plant roots take up phosphorus only in the Ortho form. Monty's 90% orthophosphate product has more P immediately available to the plant \*\***

- More unit value per pound of phosphorus
- Added Iron helps chlorophyll formation, acts as an oxygen carrier, and helps certain respiratory enzyme systems
- Virtually no heavy metals
- Can be applied with Liquid Nitrogen
- A much less corrosive product than 10-34-0... more planter friendly!

## 9-24-3 90% Orthophosphate – Weighs 11 lbs per gallon=182 gal/ton

- 11 lbs/gal x 5 gallon = 55 lbs x .09 = 4.95 units of Nitrogen available
  - 11 lbs/gal x 5 gallon = 55 lbs x .24 = 13.2 units of Ortho P available
  - 11 lbs/gal x 5 gallon = 55 lbs x .03 = 1.65 units of Iron available
- 90% of 13.2 units = 11.88 units of Ortho P in 5 gallon

## 10-34-0 – Poly 65% and Ortho 35% mix – Weighs 11.6 lbs per gallon=172 gal/ton

- 11.6 lbs/gal x 5 gallon = 58 lbs x .10 = 5.8 units of Nitrogen available
  - 11.6 lbs/gal x 5 gallon = 58 lbs x .34 = 19.72 units of Phosphorus
- 35% of 19.72 units = 6.9 units of Ortho P in 5 gallons.

10-34-0 is a 65% Poly with only 35% Ortho available, which reduces the availability of Phosphorus. Meaning, of the 19.72 units of phosphorus in 10-34-0, only 6.9 units of phosphorus are available (19.72 x .35). Considering only 35% of a poly/ortho product is available, 10 gallons of 10-34-0 only provide 13.80 units of usable Phosphorus.

## Cost equation:

9-24-3 = \$\_\_\_\_/gal x 5 gal/ac = \$\_\_\_\_ = 90% available

10-34-0 = \$\_\_\_\_/gal = 10 gal/ac = \$\_\_\_\_ = 35% available,  
raising your cost of P (at 10 gallon/ac) to \$\_\_\_\_/ac.

## What is the difference between 90/10 Orthophosphate and 65/35 Phosphate?

Orthophosphate is readily available to the plant. The 65/35 poly blend contains a synthetic phosphorus, heavy metals, and requires as much as 20 to 40 days of conversion (depending upon soil conditions) to become plant available. This delay can result in uneven germination, uneven emergence, and inconsistent root development — and an overall less healthy and productive plant. Conversely, when more phosphorus is immediately available to the plant through a higher ratio of orthophosphate (ex Monty's 90%), you obtain better root development, quicker and more even emergence, and a healthier plant.



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**Compared to Monty's 9-24-3 (at 5 gallons/ac), the traditional 10-34-0 (at 10 gallons/ac) is an expensive, low performance product. Monty's 9-24-3 gives you more than double the available Phosphorus! In addition, because of the high salt, it would definitely NOT be safe for in-furrow placement. Ask your Monty's Representative how 9-24-3 can benefit you!**