



TECHNICAL BULLETIN

Best Use Practices for Applying Wolf Trax DDP in a Fertilizer Blending Plant

There are many advantages to using Wolf Trax® DDP Nutrients in your dry fertilizer blend:

- Blending procedures are similar to those used to blend typical granular nutrients
- Less product is required per batch
- You achieve a very consistent distribution of Wolf Trax DDP Nutrients throughout the fertilizer blend.

BLENDING INSTRUCTIONS

- 1) Determine the product needs per acre based on Soil Test Recommendations.
- 2) Determine the amount of DDP product needed based on your total batch size, and acres to be treated.
- 3) It is very important to ensure the correct amount of DDP product is added.
- 4) DO NOT mix in more than 1% of the total blend weight.

Upright screw batch or tower blender:

- Fill the blender 2/3 to 3/4 full with granular fertilizer products. Add the required amount of DDP product, and then add the remaining granular fertilizer.
- Blend adequately for three to five minutes, or for as long as you usually blend when mixing granular products.

Tower blender

- A system for elevating the DDP product, and inserting it into the blender tub is needed. A pressurized air system called the Wolf Trax Microcharger was developed to help elevate its products into your blender from ground level.
- The easiest way to elevate Wolf Trax DDP to your tower blender is through the use of air. Contact your blender manufacturer regarding the availability of this equipment, or ask Wolf Trax about the Microcharger system, developed to elevate Wolf Trax products into your blender tub from ground level.
- If using the Wolf Trax Microcharger, pressurize the system to 60 to 80 psi. Be careful as higher psi (over 80) can cause the DDP product to compact.

Drum mixer

There are two options:

Option A

- Fill the weigh hopper full with the macro fertilizer (N, P, K, S).
- Add all the DDP product required on top of the macro fertilizer in the weigh hopper.
- Empty the weigh hopper into the blender. This will allow the DDP product to begin adhering to the fertilizer as it “funnels” out of the weigh hopper and into the blender.

Option B

- Fill the weigh hopper full with the macro fertilizer (N, P, K, S) and start emptying it into the blender.
- Add the DDP directly into the blender once the blender is 1/2 to 2/3 full.
- Blend adequately for three to five minutes, or for as long as you usually blend when mixing granular products.

Volumetric blender

- Minor bin modifications are required to deliver a powder product into a volumetric blender.
- Calibrate your DDP based on a bulk density of 53 pounds per cubic foot or .80 kg/liter.
- The DDP bin **MUST** be located at the end of the fertilizer stream, so that it will coat all other products in the blend.
- A four-inch double-flighted auger is needed in the DDP bin.
- Five to seven feet between where the macronutrient enters the horizontal cross auger and the point at which the blend gets elevated is needed to adequately coat the blend.
- A bin vibrator may be necessary to prevent the macronutrient from “bridging”.
- Most granular micronutrient bins can be easily modified to allow for a powder application. Ranco® has an upgrade kit available to convert your existing granular micronutrient bin to one that can feed DDP products (retail value approximately \$850). Four-inch double-flighted auger bins are also available.

Helpful Hints

- DDP may be added to the granular fertilizer alone, however, some of our customers prefer to stir the required amount of DDP product into a small amount of granular fertilizer before adding to the blender
- DDP product should be added to fertilizer and **NOT** be placed on its own directly into a loader or bucket elevator.
- If dust is a concern, a slight amount of liquid fertilizer (one quart/ton) or a light spray oil (chemigation oil) can be added with the DDP in the scoop of fertilizer. (This is already a common practice in fertilizer warehouses when handling dusty granular products).
- Hand scoops (usually used for weighing livestock feed), hanging scales, or table scales may be used for weighing out the DDP product.

Commonly Asked Questions

Will I see a lot of dust using Wolf Trax DDP?

When blended correctly, you should not see an increase. Dry fertilizer always contains some dust. When you first add DDP you may notice a “blooming” as it searches for granules to attach itself to. DDP is designed so that it will not stick to itself, so once a granule is fully coated it seeks an uncoated granule to stick to. During the blending process it will move around while it is unattached. This is normal and will only take a few seconds to dissipate. Typically you will not experience an increase in fertilizer dust due to the addition of DDP products. As mentioned above, adding a small amount of liquid fertilizer will address these issues.

Does the DDP product stick to the sides of the blender, or to the bucket of the loader?

If the DDP is added directly to the blender or loader before the dry fertilizer, some of it will stick to the sides. (This is not recommended). Some granular fertilizer should always be in the blender before the DDP is added. If granular fertilizer is present, it will attract the DDP better than the metal in the loader.

Do I need to increase my blend time?

If you are blending multiple macronutrient products you should not need to increase blend time much, if at all. DDP disperses very rapidly through a blend of fertilizer. If you are coating a single macronutrient product, you should let the blender run as long as you would normally if you were blending multiple macros.

Can I blend more than one DDP product? (E.g. Boron DDP and Zinc DDP?)

Yes! They can be added in the same scoop of fertilizer, or separately. Remember you cannot exceed the 1% by weight coating concentration for all DDP nutrients combined.

Can I pre-coat urea or potash with DDP and put into storage?

Long term storage studies have demonstrated that the DDP coated on urea or potash stores without any problems. Best practice is to apply a bag of diatomaceous earth, Sipernat, or a similar silica-based drying agent (commonly found at your local feed mill) to the first few tons of coated fertilizer at the bottom of the storage pile.

Can I use my existing micronutrient bin?

Yes, however, some modifications are usually required. If your micronutrient bins have a six-inch auger, they do not run slow enough to accurately apply the DDP. There are several simple solutions available either off the shelf, or for on-site modifications. Talk to your Compass Minerals representative for more information.

Can I add DDP to another product and have it carried into the blend auger?

This is possible, however, care must be taken when calibrating the DDP rate. You must also ensure that there is an adequate amount of granular fertilizer product available so that all the DDP is adhering to a fertilizer granule, and not left on its own. If excess DDP is not adhered to a granule, dust problems may develop.

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Will the DDP “bridge” or “hang up” in the feeder?

DDP can bridge depending on the hopper shape. If this occurs, the simple addition of a bin vibrator will solve any bridging issues. Ensure the bin vibrator only operates when the feeder is dispensing product.

How does humidity affect the flow of DDP?

There should be minimal, if any, effect of humidity on the flow of the macronutrients.

Where does DDP need to be introduced in the sequence of products?

The DDP product(s) should be introduced to the horizontal blend auger last, so that it will coat all other products in the blend.

The following includes guidelines for successful fertilizer coating application of Wolf Trax® DDP Nutrients in a fertilizer blend plant, and also provides answers to commonly asked questions.

You and Wolf Trax....Growing Forward® together.

For more information on the Wolf Trax family of Innovative Nutrients, contact your Compass Minerals Representative, call 204-237-9653, or visit us at www.wolftrax.com.