DeltAg **Product Brief**
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Foliar Urea Can be Very Beneficial in Extreme Heat

Across the Mid South we have many soybean and cotton fields that are still blooming and attempting to 'set' a crop in this extreme heat. DeltAg has received numerous calls about maintaining crop potential under these conditions.

While our job is to push for higher yields, this current heat wave may dictate that we take a more economical approach of working to keep the crop potential already on the crop from going backwards. This may not be what we want to hear, but the reality is that this type of extreme temperature, especially at night, will limit yield potential for any crop, especially those younger crops that are non-irrigated.

We must remember that our crops only know one function, "**To Reproduce Seed**". Once stressed, these crops will shut down and work to "protect" the developed older fruit by shedding or throwing off the younger fruit… thus…….loosing yield potential . In reality, we can irrigate, but truth is, this night time heat is still gonna shut crop transpiration down, even with ample water. While there is no doubt that applying ***Boron Plus*** will help. Not knowing when this heat wave is going to break, many growers are looking for the most economical way to help hold their crop up or at the least, protect the fruit that is already set.

Weekly Applications of Foliar Nitrogen With crops like cotton and soybeans, every week of bloom is a new setting of fruit. Honestly, we do see surprisingly good results in holding and sizing mid-size fruit through these periods of extreme heat.

Start with a Light Dose of Foliar Urea and Build Up: The most crucial step in making this approach successful is making sure our first treatment is utilized to 'set up' the foliage to accept additional treatments as necessary. In other words, we are preparing the crop to accept multiple applications. If handled incorrectly, we could create foliar burn, causing us to have to quit any additional applications, thus resulting in no benefit. The leaf surface of these crops is becoming leathery and tough as they work to shut down during daylight hours to preserve moisture. This means it is much harder to get reasonable absorbance of nutrients, thus much easier to create salting out and foliar burn. **In the first treatment,** it is imperative that we use a total volume of at least five gallons of water with only one or two gallons of foliar urea (see below) and 8 ounces of ***Percplus*** per acre. The addition of this small amount of ***Percplus*** helps set the crop up for multiple weekly applications. Once we observe foliar burn at any level, we must quit making these applications or risk extreme foliar burn, resulting in more harm than good. This protection from "burn" allows for **continuous weekly applications** of foliar urea as necessary. This can be critical in dry weather, especially on non-irrigated crops. While we have seen three weekly applications of foliar urea with no water create foliar damage, we have seen the method we are describing used for anywhere from five, up to ten consecutive weeks with no burn

Foliar Urea Options

Purchase Liquid Urea; In many areas, there are dealers that actually stock a liquid foliar urea that, depending on the source and geographical location, can range from 18% to 23% nitrogen. When this liquid material is available, we simply recommend two gallons of urea in five gallons total and with the addition of ***Percplus*** at 8 Oz/acre.

Build Your Own Liquid Urea: In areas where there is no liquid available, the grower can actually melt down dry granular urea with water, add the ***Percplus***, and make the application. In these cases, we need to recognize that urea, when dissolved in water, will drastically drop the temperature of the solution to a point where it could freeze the hoses used for recirculation. In most cases, total volume should be a minimum of five gallons per acre. So rather than fighting the cold water issue making a high percent (18% to 23%) nitrogen solution and adding water, you can easily formulate a 12 to 15% urea nitrogen solution and make the application by adding less water to the final solution.

A Simple Recipe is to fill a nurse tank with 750 gallons of water, turn on a recirculating pump, and slowly add 3,000 pounds of dry-granular urea. This will generate 1,000 gallons of 14.9% Nitrogen from urea. Then add 12.5 gallons (5 jugs - 4 Oz/gal) of ***Percplus*** while recirculating. Apply three gallons per acre in a total five gallon volume and preferably early morning. I have often been amazed at the favorable impact this can have on our crops.