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Wheat Newsletter

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Unfortunately, the wheat crop remains in poor condition across most of the Texas. In the Blacklands, some rainfall did occur on January 22 and January 28, and rainfall ranged from 0.1 to 1.5 inches. The Rolling Plains has been less fortunate with 0.1 to 0.5 inches in late January. However, this may be too little too late for many producers with wheat that has not emerged yet. Below are some general comments to consider for the current wheat crop.

Wheat fields that have a good stand still have potential to produce moderate yields, if more rain occurs in the near future. Yield estimates for wheat that has adequate tiller counts (greater than 25-30 tillers/ ft of row on 8" drill rows) may still yield around 25 bushels/a. See the publication entitled "Estimating Wheat Yield Potential" at http://varietytesting.tamu.edu/wheat/docs/mime-6.pdf for specific details on yield potential (remember this publication will only estimate wheat yield potential and therefore, should be only be used as a guide in making cropping decisions). When estimating wheat yields one will most likely want to use the formulas developed with 15 seeds/head. This will especially be true for wheat that is stressed and has very little underground moisture. Care should also be taken to use live tillers and not ones that have already died in these estimations. Additionally, areas with low or no wheat stand should also be considered when estimating the overall field yields.

In wheat fields with poor stands, newly emerged, or non-emerged wheat, the producers may expect no to low yields. Low yields will be the result of poor vernalization (plant will not convert to the reproductive stage) and moisture stress. Additionally, wheat maturity will likely vary within the field and will cause non-uniform maturity, which will likely delay harvest.

How to determine if the wheat has vernalized?: If a wheat plant has not received adequate chilling days to vernalize, then the developing seed head (spikelet) and corresponding stem joints will not be present within the stem. The seed head development and jointing varies by variety and geographic location. The publication entitled "Growth Stages of Wheat" at http://varietytesting.tamu.edu/wheat/docs/mime-5.pdf. provides some good pictures and description on the jointing stage (Feekes 6). Most wheat in the South Texas should begin to joint around mid-February. In the Northern Blacklands, jointing should occur sometime between mid-February and early March. In the Rolling Plains wheat typically reaches the jointing between late-February and mid-March.

Document the current crop conditions: In order to document the current growth stage of your wheat (especially fields that are currently not emerged) for insurance purposes, it might be

beneficial to take pictures of the wheat fields. **However, the pictures must be properly dated by the camera. Additionally, it would be wise to include visible landmarks in the pictures to distinguish individual fields.** In order to get a good representation of the field, several pictures should be taken along with multiple dates over the next month. These pictures may prove useful for insurance purposes or possibly disaster claims in the future.

Top-dress recommendations: Producers should strongly consider reducing the top-dress nitrogen applications due to several factors, including dry weather throughout the fall and winter, reduced yield potential of the wheat crop, and nitrogen prices.

Current nitrogen recommendations for wheat are based on the yield potential (2 lbs N/bushel of the wheat crop) minus the residual soil nitrogen. A total of 2 lbs of nitrogen/acre for each bushel of predicted wheat yield is recommended. Due to the dry weather, nitrogen loss from leaching or nitrogen use by the wheat crop in the fall and winter was minimal. Therefore, much of the nitrogen applied in the fall should still be available for the wheat crop. Also, wheat yield potential has been substantially reduced due to the dry weather and delayed emergence and tillering. Top-dress nitrogen rates should be reduced based on the current yield potential minus the estimated residual nitrogen.

Should the wheat crop be destroyed to prepare for a summer crop?:

- Before any crop is destroyed, visit with the appropriate agencies about your wheat crop insurance and carefully plan your alternatives.
- Herbicide carryover, many of the preemergence herbicides applied to wheat have a long crop rotation restriction for cotton, corn, sorghum, and soybean. In particular herbicides such as Ally, Amber, and Finesse have a long crop rotation restriction. If a preemergence or postemergence herbicide was applied to the wheat crop, be sure to check the herbicide label to determine the plant back restrictions.
- Residual nitrogen should be present in the soil from the nitrogen applied at or near planting time of wheat. This residual nitrogen present in the soil should be subtracted from the recommended nitrogen for the summer crop. Previous research in the Blacklands has identified well over 70-100 lbs N in the top two feet of the soil (McFarland and Lemon, 2005). Considering the current price of nitrogen fertilizer, it will definitely be feasible to quantify the amount of nitrogen present in the soil before applying nitrogen fertilizer for the summer crop. Producers are encouraged to take soil samples down to at least one foot, to estimate the amount of nitrogen available.