

2018 Agronomy Team Event Questions and Suggested Answers for Judges For Event Use Only

Discuss the pros and cons for the clothing manufacturer's offer of a premium for the farmer's cotton crop?

The primary pro is that the manufacturer is willing to offer a 15 cent premium on top of the farmer's current contract price for the cotton lint that meets pre-specified lint quality parameters. The manufacturer is not requiring that the farmer change the normal cultural practices of the farm and the farmer has the option of choosing the field and production system that offers him the best return on investment.

There are no cons in this scenario since the farmer already contracted cotton lint for a set price. Any lint not meeting the clothing manufacturer's quality standards can be sold at the preset price. The manufacturer also does not require the farmer to use any special management practice and made no demand for a different fertility or pesticide program so it's a win-win for the farmer.

A trend of the past few months and one expected to continue has fertilizer prices doubling or tripling before the next growing season. Would you expect that a significant increase in fertilizer prices will change the conclusion of which field the farmer should chose to plant?

Although the Peterson field has fewer acres, the soil type is a deep sand that has special fertility requirements plus increases the number of irrigations the crop requires. In addition to a N rate 25% greater than that for the Hodges field, the Peterson field also will require two foliar potash applications using an expensive fertilizer (potassium nitrate). The increased cost of all fertilizers should bring the overall fertility costs closer together for the two fields (\$698.48 more for Peterson at the higher fertilizer prices versus \$1,115.76 more for Peterson at the lower price) but does not change the field selection or the acceptance of the premium offer. It does, however, reduce the profits by about \$5k.

Discuss the differences you perceive between the strip tillage and conventional tillage planting methods?

In conventional tillage, there is no burndown herbicide application since the soil is worked to clean the field of weeds and to prepare a good weed-free, firm seedbed. Usually during the process of working the soil, a broadcast application of NPK is made. If a pre-emergence herbicide is used, it can go on in the same operation as planting the crop or a separate operation depending on the grower's equipment availability. The planter will open a furrow, deliver any preplant in-furrow products, close the furrow, and apply pre-emergence herbicide. For strip till, a burndown herbicide is used to control weeds already growing in the field (often applied 21 to 30 days prior to planting). The strip till planter unit will subsoil the crop row; form the seed bed; open the seed furrow; deliver any in

furrow pesticide, fertilizer, and the seed; close the furrow; and will have a sprayer on the back to apply the pre-emergence herbicide. This equipment does require a lot more horsepower to pull the planter and so will cost more per acre.

Do you think that there would be time to establish a cover crop after the cotton harvest; and, if so or even if not, what limitations would you see for the following year's cropping system (with respect to fertility, pH, insect control, weed control)?

Since the cotton crop won't be defoliated until Oct. 6 and cotton is often picked at least twice, there won't be time to establish a cover crop and get adequate growth on that crop. If weed control has been successful, there should be little weed growth following defoliation. A cotton crop planted the following year will need an extra 25% N.