



TEAM EVENT 2023 - AGRONOMY

FIELD MANAGEMENT PROBLEM

Using the information provided in the packet, you will answer the questions as it relates to the given scenario below:

You are consulting for a large farming operation in the desert southwest and that has had growing contracts with large vegetable shippers from California for several years. This year the producer is growing 40 acres of head lettuce on the open market in the hopes of making a larger margin.

Pre-plant irrigation will be flood irrigation on laser flat ground; there is no water run-off. The source of the water is the Colorado River delivered to the field in cement lined ditches. The crop will be germinated via a temporarily installed sprinkler irrigation pipe and powered with a diesel booster pump. Once the crop is established, it will be irrigated with furrow irrigation.

Preplant fertilization will consist of 350 lbs. of MAP (11-52-00) per acre. In season, there will be 92 gallons of UAN32 applied; One gallon of UAN32 weighs 11.06 pounds.

The lettuce (leafy greens) will be grown in a medium textured soil and will require a preplant herbicide application. It will also require a second herbicide treatment applied during the germination process, applied via chemigation at the maximum labelled rate.

This lettuce crop is following a Sudangrass crop where some biomass residue is still present in the soil, creating a potential for early insect pressure by flea beetles, armyworm, cabbage looper, and white fly. This can cause severe plant injury or death if not addressed quickly. Two insecticides will be applied via shanks on the planter at planting. Coragen will be applied at 6oz per acre and Admire at 7oz per acre.

There was Cabage Looper pressure reported on 10-5 and 75% of the max label of Lannate was recommended and applied.

On 10-16, the forecast called for 80% chance of rain between 0.25 and 0.5 inches. A preventative fungicide application of Orondis Ultra was applied at 6 fl. Oz per acre. The product was applied via aerial application and was conducted on 10-16 and again on 10-26 with a harvest date of 11-12. The application is to prevent powdery mildew.

The buyer is responsible for the cost of harvesting and cooling. Due to cooler weather, there is a tightening in the supply as crops were taking longer to mature. The yield on the crop is estimated at 900 boxes per acre at an open market value price of \$80/box. One of your shippers asked if the producer would be willing to take 75% of the full market value for the crop.

Fill out the spreadsheet and answer all the questions to determine the following:

Was the crop profitable?

What was the total cost of production?

What was the total profit potential of the crop?

What would be the revenue at 75% of full market value?

Why would/wouldn't you take 75% of full market value?