

BUDGET--For Event Use Only--Page 1

State Number: _____ State Name: _____

Fertility Costs: Round All Numbers to Two Decimal Places at Each Step

Question 1. What is the recommended amount of N, P2O5, and K2O **needed preplant broadcast** for each field?

Hodges Field			Peterson Field		
N	30	lb/acre	N	30	lb/acre
P2O5	45	lb/acre	P2O5	45	lb/acre
K2O	45	lb/acre	K2O	45	lb/acre

Question 2. What fertilizer would you choose to provide the N, P2O5, and K2O **preplant broadcast** and why?

Answer: In this instance, 300 pounds of 10-15-15 fertilizer per acre matches the nutrient needs of the fields and is competitive on a cost basis especially since all three nutrients can be applied in one operation rather than 3 separate operations.

Question 3. Since both fields can have the same amount of fertilizer applied, what is the per acre and field cost for the **preplant broadcast** fertilizer application?

	Hodges Field	Peterson Field
Per acre	\$51.00	\$51.00
Appl cost	\$9.50/acre	\$9.50/acre
# Acres	73 acres	56 acres
Total cost	\$4,416.50	\$3,388.00

Question 4. Since the fields require both phosphorus and potassium, could these nutrients be applied the previous fall during normal tillage operations? ___ Yes or X No (check the answer)

Question 5. Does the GA Soil Test Laboratory recommend an application of sulfur? Yes

Question 6. If sulfur is applied, what are the two application timing options?

- Option 1.** Apply it as part of the preplant or at planting fertilizer application or
Option 2. Apply the S with the sidedress N application

Question 7. What two (2) special concerns are there on deep sand soils?

Answer: You must apply 2 foliar applications of 4.4 lb K2O/acre in 5 or more gallons of water as an aerial application during 1st bloom to 4th week of bloom **AND** increase the N rate by 25%.

Question 8. During what plant growth stages should sidedress N be applied?

Answer: Apply sideress N between first square and first bloom but near first square if plants are pale green or growing slowly.

Question 9. At what rate and when should Boron be applied to the cotton crop?

B rate lb/acre/application 0.25 lb B/acre Type of application: Foliar Number: 2
 Timing of B: Apply two foliar applications of 0.25 lb B between first square and first bloom.

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Question 10. Under what conditions should the recommended N rate be increased by 25%?**Answers:****Condition 1.** Cotton is planted on a Deep Sand (>18 inches to subsoil clay)**Condition 2.** Cotton follows cotton**Condition 3.** The field has a history of poor cotton stalk growth**Question 11.** Under what conditions should the recommended N rate be decreased by 25%?**Answers:****Condition 1.** Cotton follows a soybean or peanut crop**Condition 2.** Cotton is following a good stand of winter legume cover crop**Condition 3.** The field has a history of excessive or rank cotton vegetative growth**Question 12.** What fertilizer would you select to apply sidedress N via the irrigation system?**Answer:** To obtain the needed/recommended sulfur, use the 28-0-0-5S thiosulfate liquid.**Question 13.** What rate of N should be applied to each field? What is the cost? How much and at what cost can Boron be added? What is the total cost for sidedress N + B?

Answers:		Hodges Field		Peterson Field	
		73 acres		56 acres	
Lb N/acre		75	lb N/acre	101.25	lb N/acre
Cost of N/ac		\$37.50	\$/acre	\$50.63	\$/acre
Amt B/acre		0.25	lb B/acre	0.25	lb B/acre
Cost of B/ac		\$2.68	\$/acre	\$2.68	\$/acre
Appl. cost		\$0.00	\$/acre	\$0.00	\$/acre
Total Cost	per field	\$2,933.14	\$/field	\$2,985.36	\$/field

Question 14. Both fields will require a second foliar application of Boron by ground rig so what is the cost?**Answer:**

		Hodges Field		Peterson Field	
		73 acres		56 acres	
Amt of B/acre		0.25 lb B/acre		0.25 lb B/acre	
Cost of B		\$2.68	per acre	\$2.68	per acre
Appl. Cost		\$8.00	per acre	\$8.00	per acre
Total Cost	per field	\$779.64		\$598.08	

Question 15. Which field requires a special fertilizer application to prevent a nutrient deficiency?**Answer:** Peterson Field

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Question 16. What fertilizer must be used to prevent the possible deficiency?

Answer: 13-0-46 or KNO3

Question 17. Complete the following cost calculations for using this foliar fertilizer.

Fertilizer Selected	13-0-46 or KNO3
Type of Application	Aerial foliar
Number of Applications Needed	Two

For the calculations below, you must round the amount of fertilizer needed per acre to the nearest whole number!

	For 1 acre		For the Field
Application rate lbs nutrient per acre	4.4 lb K2O/acre		
Amount of the chosen fertilizer needed	10	lb/acre	560 lbs
Cost of chosen fertilizer per application	\$3.30	per acre	\$184.80
Fertilizer cost for all applications	\$6.60	per acre	\$369.60
Cost of all foliar aerial applications	\$34.00	per acre	\$1,904.00
All Inclusive Cost for Special Nutrient	\$40.60	per acre	\$2,273.60

Question 18. What are the total costs for all fertilizer that the soil tests on the fields recommended (include at planting fertilizer, sidedress N + B, foliar boron, and any special required nutrients).

	Hodges Field	Peterson Field
All inclusive fertilizer costs	\$8,129.28	\$9,245.04