

TABLE 8.1. Days without plant water stress following rainfall for different rooting depths

Rooting depth (inches)	Days without water stress following rainfall ¹
6	3
9	5
12	6
24	12
35	18
48	24
60	30

¹ The available water was 1 inch per 6 inches of soil, and the evapotranspiration was 0.33 inch per day. *Source:* [16]

TABLE 8.2. Cost and return comparison of a standard conservation rotation and a four-year, sod-based rotation

STANDARD CONSERVATION ROTATION							
Annual costs and returns with two-thirds of the acres in cotton and one-third in peanuts							
	Crop	Yield	Units	Acres	Costs	Revenue	Profit
	Cotton	1,000	Pounds	133.7	\$100,265	\$108,297	\$8,032
	Peanuts	4,200	Pounds	66.3	\$51,408	\$72,400	\$20,991
			TOTAL	200	\$151,673	\$180,697	\$29,024
						FOUR-YEAR TOTAL	\$116,096
CONVERTING TO SOD-BASED ROTATION							
Projected annual costs and returns for the four-year, sod-based rotation							
YEAR ONE							
Field	Crop	Yield	Units	Acres	Costs	Revenue	Profit
1	Bahia 1 ¹	3	Tons	50	\$18,554	\$32,826	\$14,272
2	Cotton	1,000	Pounds	50	\$37,496	\$40,500	\$3,004
3	Peanuts	4,200	Pounds	50	\$38,769	\$54,600	\$15,831
4	Cotton	1,000	Pounds	50	\$37,496	\$40,500	\$3,004
			TOTAL	200	\$132,315	\$168,426	\$36,111
YEAR TWO							
Field	Crop	Yield	Units	Acres	Costs	Revenue	Profit
1	Cattle ²	81	Calves	50	\$34,139	\$84,443	\$50,303
2	Bahia 1	3	Tons	50	\$18,554	\$32,826	\$14,272
3	Cotton ³	1,200	Pounds	50	\$41,246	\$48,600	\$7,354
4	Peanuts	4,200	Pounds	50	\$42,519	\$54,600	\$12,081
			TOTAL	200	\$136,459	\$220,469	\$84,010
YEAR THREE							
Field	Crop	Yield	Units	Acres	Costs	Revenue	Profit
1	Peanuts ³	5,200	Pounds	50	\$42,519	\$67,600	\$25,081
2	Cattle	81	Calves	50	\$34,139	\$84,443	\$50,303
3	Bahia 1	3	Tons	50	\$18,554	\$32,826	\$14,272
4	Cotton	1,200	Pounds	50	\$41,246	\$48,600	\$7,354
			TOTAL	200	\$136,459	\$233,469	\$97,010
YEAR FOUR							
Field	Crop	Yield	Units	Acres	Costs	Revenue	Profit
1	Cotton	1,450	Pounds	50	\$41,246	\$58,725	\$17,479
2	Peanuts	5,200	Pounds	50	\$42,519	\$67,600	\$25,081
3	Cattle	81	Calves	50	\$34,139	\$84,443	\$50,303
4	Bahia 1	3	Tons	50	\$18,554	\$32,826	\$14,272
			TOTAL	200	\$136,459	\$243,594	\$107,135
						FOUR-YEAR TOTAL	\$324,265

¹“Bahia 1” refers to first-year bahiagrass.

²In each year, this row refers to the number of cattle grazing second-year bahiagrass.

³Cotton and peanut yields increase over time as the benefits of including them in a sod-based rotation are realized.