

## 1993 Cotton Management Economic Notes

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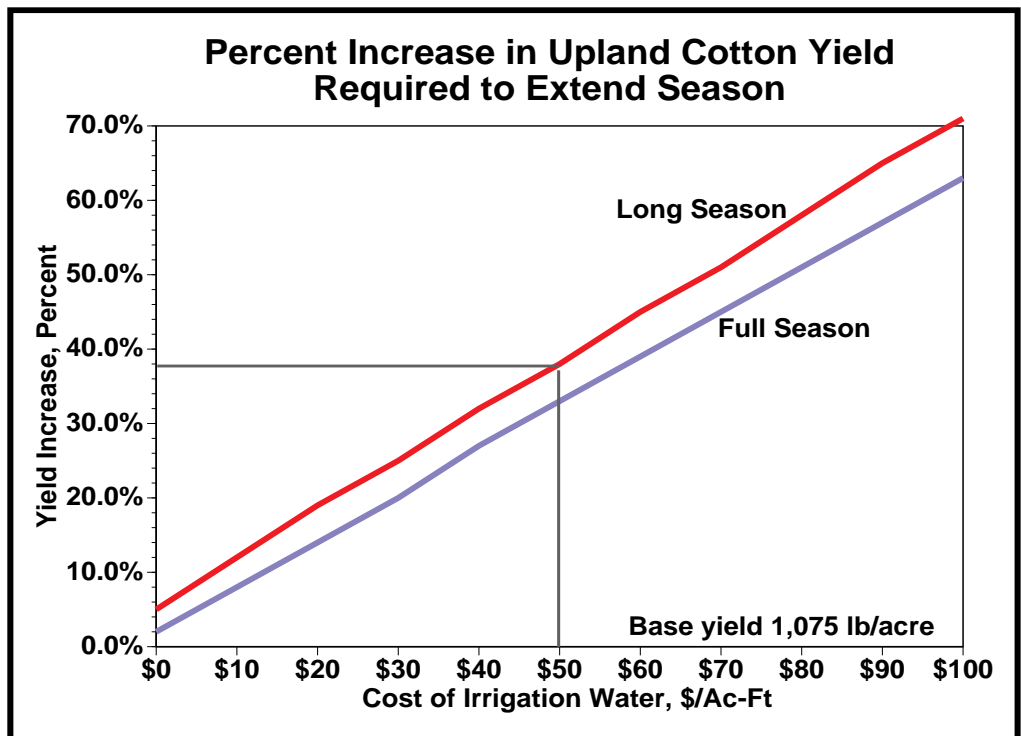


### What's a Loss Anyway?

The old story about the TV pitchman who claims to be selling his wares for the lowest possible price and is **"losing money on every sale; but making up for his losses in volume"** comes to my mind as the 1993 cotton year comes into this critical part of the growing season. The near-term economic prospects are in a holding pattern as prices continue low and conditions are hot and dry. Growers are surely facing one of the most difficult times in recent years and without the federal government's Cotton Program they would be facing even rougher times.

But do growers sometimes behave as if they feel that what they lose on each pound of cotton they can make up for with increased volume? Are decisions being made consistent with the techni-

cal reality of decreasing marginal returns to added inputs? Are those last few hundred pounds of yield cheaper or more expensive than the first one-thousand or so pounds? Are growers losing more than they have to by keeping the crop in the field too long and running up additional cost which simply increase the farm's losses per acre, or per pound? (By the way, if



### Recent Prices

	June 25, 1993	
	<u>Upland</u>	<u>Pima (ELS)</u>
	(¢/lb)	(¢/lb)
Spot	52.90	93.00
Target Price	72.90	105.80
Loan Rate	51.15	88.15
Dec '93 Futures	56.68	

Note: Upland Spot for Desert SW grade 31, staple 35;  
 Pima Spot for grade 03, staple 46, 6/18/93; Phoenix Loan Rates

costs are fully accounted and include the "opportunity costs" of the equity value of land and other production capital, the unit is not important; i.e., losses per acre are the sum of losses per pound.)

The above graph is a repeat of one used last year to illustrate the problem of extending the crop year, thereby, requiring more inputs to finish the season. The graph assumes that yields for a base "short season" are 1,075 lb/acre and that cotton prices are at the national

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## Estimated To-Date Production Costs

\$/lint lb (June 30)

The following table gives estimated production costs/lb to-date. These costs include both growing and fixed or ownership costs and are based on the displayed target yields. Producers with higher yields will have lower costs/lb if input costs are the same. Growers with lower yields will have higher costs/lb.

County	Target Yield	Growing Costs		Fixed Cost	All Costs To Date
		June	To Date		
Yuma	1,300	.04	.10	.25	.35
La Paz	1,300	.04	.13	.27	.40
Mohave	1,100	.02	.13	.23	.36
Maricopa	1,250	.02	.11	.23	.34
Pinal	1,300	.04	.17	.26	.43
Pima	1,100	.06	.13	.28	.41
Cochise	700	.04	.33	.42	.76
Graham	1,050	.06	.20	.31	.51
Greenlee	850	.08	.19	.36	.55

Note: Based on Wade, et al., "1992-93 Arizona Field Crop Budgets", Various Counties, Arizona Cooperative Extension, Tucson, January 1992.

target price (72.9 ¢/lb). At lower cotton prices the increase in yield required to justify extending the season are even higher. From the graph, if irrigation water prices (or pumping costs) are \$50 /acre-foot, an almost 40% increase in yield is required to pay for the added irrigation and insect control costs.

As a point of reference, the graph below shows the differences in yield for on full season cotton variety for several irrigation termination dates for 4 years of research carried out by Jeff Silvertooth, UA Extension Cotton Specialist, and his associates. The graph shows that for even the best year (1989), yields increased only between 10 and 20%. The message, although confused by the large range of water prices paid by farmers in Arizona, is that extending irrigation beyond first or second week in August likely consumes some of the potential positive re-

turns that exist in the crop at that time.

The moral of the story that began this analysis is that true unit losses can not necessarily be compensated for by increased volume (or yield); and management strategies that increase individual yields by adding inputs may seriously damage the financial stability of a farm by increasing financial losses beyond the farmer's ability to bare their costs. The added argument that increased yields can only help in the future as new Farm Program yields are established is not currently valid. Of course, the USDA could come back at some future date and re-estimate farm yields for program payments. However, the likelihood of this happening is not very high in the current national budget deficit reduction mood. The price a farmer pays to have high yields is likely not worth the cost. The risk of following a strategy based on such an uncertain future is high.

**The economic (as well as agronomic) moral is make your crop early, protect it to early maturity and get the cotton out of the field as soon as you can.**

As a postscript, please note that most government indicators show that Arizona's crop is (or at least was in early June) in very good shape. While recent near record heat may be rapidly changing conditions, the chance to get strong growth in early summer is very good.

