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Economics of Forage and Livestock Systems

Applied Irrigation Return: Forages vs. Cotton in the Texas High Plains

September 18, 2025

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Average Harvested Acres



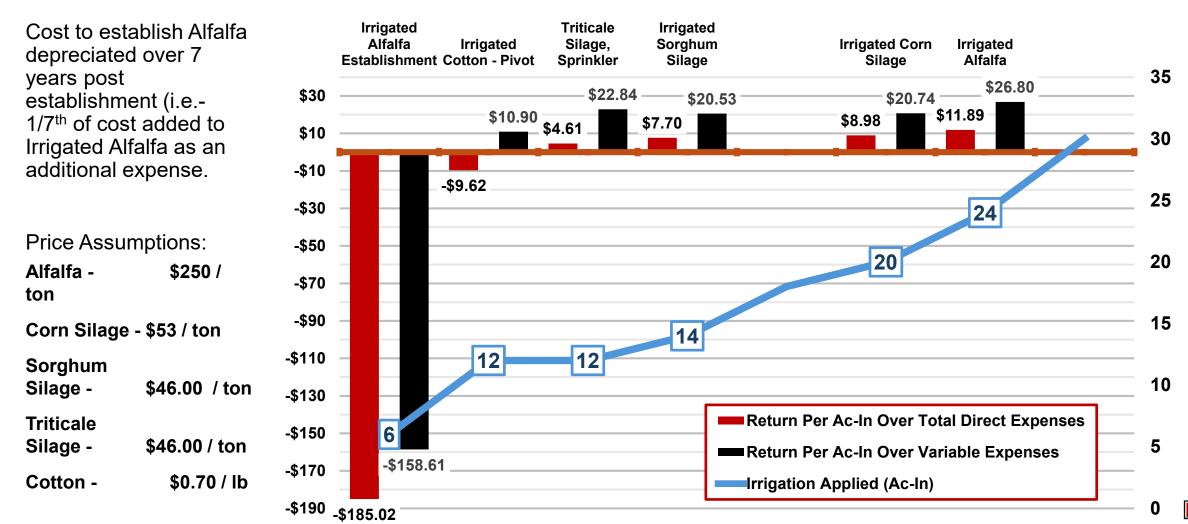
Crop	Acres
Cotton – Irrigated Harvested *	661,247
Forage Crops:	
Alfalfa Hay – Irrigated Harvested**	11,187
Corn Planted / Silage Harvested **	147,097
Sorghum Planted / Silage Harvested **	45,945
Triticale Silage Harvested **	8,783
TOTAL FORAGE **	213,012

- * Harvested Acres = Irrigated % of 2020-2024 Average Upland cotton planted acres for Dist. 1-N/1-S (NASS Survey data)
- ** Forage Acres = 2022 Census of Agriculture data of forage crop acres harvested in Dist. 1-N/1-S



District 1 - 2025 Return per Acre-Inch of Irrigation Water Applied







District 2 - 2025 Return per Acre-Inch of Irrigation Water Applied



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Cost to establish Alfalfa depreciated over 7 years post establishment (i.e.- 1/7th of cost added to Irrigated Alfalfa as an additional expense.

Price Assumptions:

Alfalfa - \$250 /

ton

Corn Silage - \$53 / ton

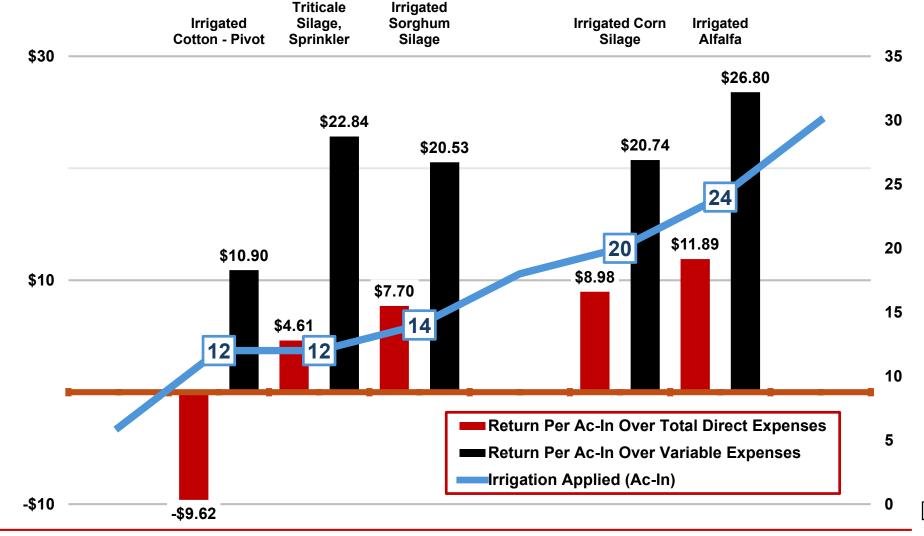
Sorghum

Silage - \$46.00 / ton

Triticale

Silage - \$46.00 / ton

Cotton - \$0.70 / lb





District 2 - 2025 Return per Acre-Inch of Irrigation Water Applied

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Cost to establish Alfalfa depreciated over 7 years post establishment (i.e.-1/7th of cost added to Irrigated Alfalfa as an additional expense).

Price Assumptions:

Alfalfa - \$240 / ton

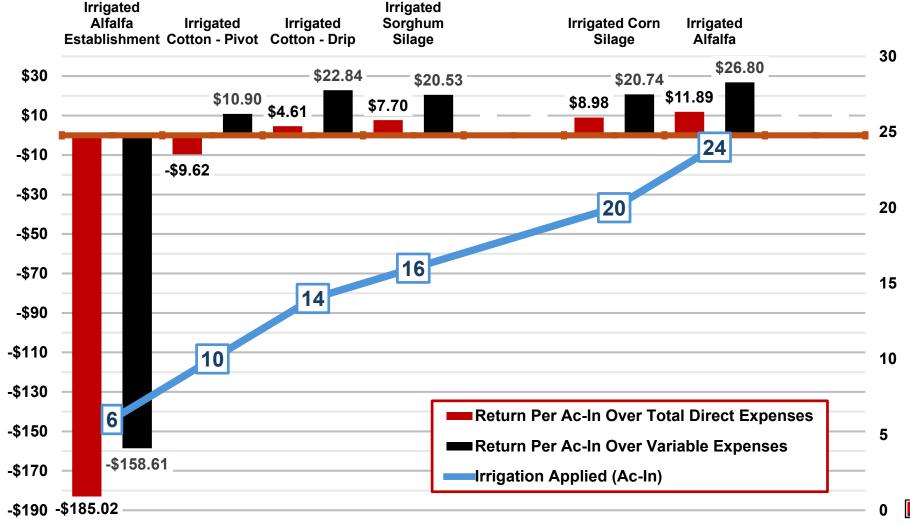
Corn

Silage - \$50 / ton

Sorghum

Silage - \$42.90 / ton

Cotton - \$0.70 / lb

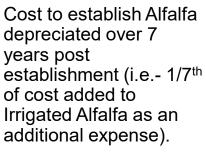




District 2 - 2025 Return per Acre-Inch of Irrigation Water Applied



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Price Assumptions:

Alfalfa - \$240 / ton

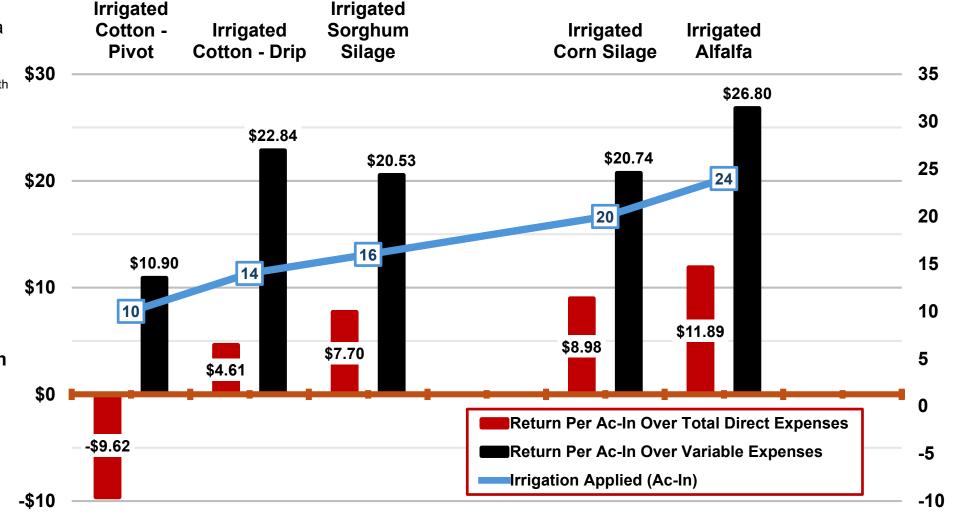
Corn

Silage - \$50 / ton

Sorghum

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Land Commitment (long- versus short-term)

Rotational benefits and costs

Market size and price sensitivity

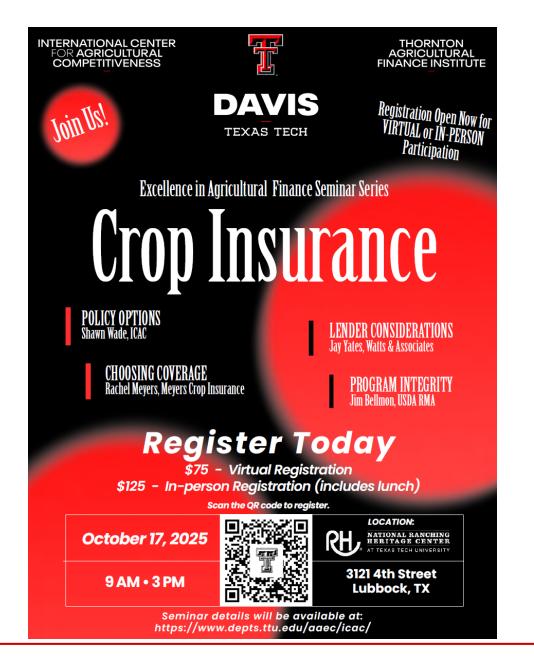


Risk Management Opportunities



- Annual Forage-Rainfall Index Dual Use Insurance
- Pasture, Rangeland, and Forage-Rainfall Index
- Livestock Gross Margin
- Livestock Risk Protection
- Dairy Revenue Protection
- Weaned Calf Risk Protection





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Questions?

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