## Costs and Returns per acre from growing alfalfa hay, 2006 Utah County

	Otan County	Quantity		Price/cost	Value/cost		
Alfalfa hay Residue	Receints	-	Unit			Rase Value	Your Value
Residue	•						Tour Value
Subtotal	,	-		*			
Pertilization		ı	710111	ψ0.00			
Fertilization		•			φοσοίο :	φοσοίο :	
Phosphate (11-52-0)         96         pounds         \$0.18         \$17.14         \$17.14           Potash (0-0-60)         50         pounds         \$0.15         \$7.50         \$7.50           Custom application         1         acre         \$7.82         \$7.82         \$7.82           Pesticides/herbicides         Furadan         1         pint         \$10.50         \$10.50         \$10.50           Custom application         1         acre         \$7.82         \$7.82         \$7.82           Irrigation (wheel line)         5         irrigations         \$10.00         \$10.50         \$10.50           Labor         1.67         hours         \$10.00         \$16.67         \$16.67           Water assessment         1         share         \$10.00         \$10.00         \$10.00           Repairs/maintenance         1         acre         \$2.30         \$2.30         \$2.30           Pumping         37         acre inch         \$0.00         \$0.00         \$0.00           Harvesting         3         acre inch         \$0.00         \$0.00         \$0.00           Swathing         3         acre         \$4.03         \$12.10         \$12.10           Turning/ra	. •						
Potash (0-0-60)         50         pounds         \$0.15         \$7.50         \$7.50           Custom application         1         acre         \$7.82         \$7.82         \$7.82           Pesticides/herbicides         1         pint         \$10.50         \$10.50         \$10.50           Custom application         1         acre         \$7.82         \$7.82         \$7.82           Irrigation (wheel line)         5         irrigations         \$10.00         \$10.50         \$10.50           Labor         1.67         hours         \$10.00         \$10.00         \$10.00           Water assessment         1         share         \$10.00         \$10.00         \$10.00           Repairs/maintenance         1         acre         \$2.30         \$2.30         \$2.30           Pumping         37         acre inch         \$0.00         \$0.00         \$0.00           Harvesting         3         acre         \$4.03         \$12.10         \$12.10           Turning/raking         3         acre         \$1.39         \$4.18         \$4.18           Baling         4.30         tons         \$4.79         \$20.60         \$20.60           Hauling/stacking         4.30		96	pounds	\$0.18	\$17.14	\$17.14	
Custom application         1         acre         \$7.82         \$7.82           Pesticides/herbicides         Furadan         1         pint         \$10.50         \$10.50         \$10.50           Custom application         1         acre         \$7.82         \$7.82         \$7.82           Irrigation (wheel line)         5         irrigations         \$7.82         \$7.82         \$7.82           Labor         1.67         hours         \$10.00         \$16.67         \$16.67           Water assessment         1         share         \$10.00         \$10.00         \$10.00           Repairs/maintenance         1         acre         \$2.30         \$2.30         \$2.30           Pumping         37         acre inch         \$0.00         \$0.00         \$0.00           Harvesting         3         acre         \$4.03         \$12.10         \$12.10           Turning/raking         3         acre         \$4.03         \$12.10         \$12.10           Turning/raking         4.30         tons         \$4.79         \$20.60         \$20.60           Hauling/stacking         4.30         tons         \$3.63         \$15.61         \$15.61           Crop insurance (75% Yield, 100% Pri	. ,		•	*		*	
Pesticides/herbicides   Furadan	• •	1	acre	\$7.82	\$7.82	\$7.82	
Custom application         1         acre         \$7.82         \$7.82         \$7.82           Irrigation (wheel line)         5         irrigations         1.67         hours         \$10.00         \$16.67         \$16.67           Water assessment         1         share         \$10.00         \$10.00         \$10.00           Repairs/maintenance         1         acre         \$2.30         \$2.30         \$2.30           Pumping         37         acre inch         \$0.00         \$0.00         \$0.00           Harvesting         3         acre         \$4.03         \$12.10         \$12.10           Turning/raking         3         acre         \$4.03         \$12.10         \$12.10           Turning/raking         3         acre         \$1.39         \$4.18         \$4.18           Baling         4.30         tons         \$4.79         \$20.60         \$20.60           Hauling/stacking         4.30         tons         \$3.63         \$15.61         \$15.61           Crop insurance (75% Yield, 100% Price)         1         acre         \$17.22         \$17.22         \$17.22           Interest on operating capital         \$1.36.50         \$3.48         \$3.28           Subto				, -	•	•	
Custom application         1         acre         \$7.82         \$7.82         \$7.82           Irrigation (wheel line)         5         irrigations         \$10.00         \$16.67         \$16.67           Water assessment         1         share         \$10.00         \$10.00         \$10.00           Repairs/maintenance         1         acre         \$2.30         \$2.30         \$2.30           Pumping         37         acre inch         \$0.00         \$0.00         \$0.00           Harvesting         3         acre         \$4.03         \$12.10         \$12.10           Turning/raking         3         acre         \$4.39         \$4.18         \$4.18           Baling         4.30         tons         \$4.79         \$20.60         \$20.60           Hauling/stacking         4.30         tons         \$3.63         \$15.61         \$15.61           Crop insurance (75% Yield, 100% Price)         1         acre         \$17.22         \$17.22         \$17.22           Interest on operating capital         7.61%         \$3.48         \$3.28           Subtotal         \$136.50         \$136.50           Insurance         1         acre         \$2.00         \$2.00	Furadan	1	pint	\$10.50	\$10.50	\$10.50	
Labor	Custom application	1	•	\$7.82	\$7.82	\$7.82	
Labor	Irrigation (wheel line)	5	irrigations			·	
Repairs/maintenance		1.67		\$10.00	\$16.67	\$16.67	
Pumping         37         acre inch         \$0.00         \$0.00         \$0.00           Harvesting         3         acre         \$4.03         \$12.10         \$12.10           Turning/raking         3         acre         \$1.39         \$4.18         \$4.18           Baling         4.30         tons         \$4.79         \$20.60         \$20.60           Hauling/stacking         4.30         tons         \$3.63         \$15.61         \$15.61           Crop insurance (75% Yield, 100% Price)         1         acre         \$17.22         \$17.22         \$17.22           Interest on operating capital         7.61%         \$3.48         \$3.28           Subtotal         \$152.93         \$142.20           Ownership costs (excludes cost of land)         \$136.50         \$136.50           Insurance         1         acre         \$2.00         \$2.00           Machinery ownership costs         1         acre         \$126.25         \$126.25           Irrigation equipment costs         1         acre         \$8.25         \$8.25         \$8.25           Total costs         Total costs         \$289.43         \$278.70	Water assessment	1	share	\$10.00	\$10.00	\$10.00	
Harvesting   Swathing   3   acre   \$4.03   \$12.10   \$12.10     Turning/raking   3   acre   \$1.39   \$4.18   \$4.18     Baling   4.30   tons   \$4.79   \$20.60   \$20.60     Hauling/stacking   4.30   tons   \$3.63   \$15.61   \$15.61     Crop insurance (75% Yield, 100% Price)   1   acre   \$17.22   \$17.22   \$17.22     Interest on operating capital   7.61%   \$3.48   \$3.28     Subtotal   \$152.93   \$142.20     Ownership costs (excludes cost of land)	Repairs/maintenance	1	acre	\$2.30	\$2.30	\$2.30	
Swathing         3         acre         \$4.03         \$12.10         \$12.10           Turning/raking         3         acre         \$1.39         \$4.18         \$4.18           Baling         4.30         tons         \$4.79         \$20.60         \$20.60           Hauling/stacking         4.30         tons         \$3.63         \$15.61         \$15.61           Crop insurance (75% Yield, 100% Price)         1         acre         \$17.22         \$17.22         \$17.22           Interest on operating capital         7.61%         \$3.48         \$3.28           Subtotal         \$152.93         \$142.20           Ownership costs (excludes cost of land)         \$136.50         \$136.50           Insurance         1         acre         \$2.00         \$2.00           Machinery ownership costs         1         acre         \$126.25         \$126.25         \$126.25           Irrigation equipment costs         1         acre         \$8.25         \$8.25         \$8.25           Total costs         \$289.43         \$278.70	Pumping	37	acre inch	\$0.00	\$0.00	\$0.00	
Turning/raking 3 acre \$1.39 \$4.18 \$4.18 Baling 4.30 tons \$4.79 \$20.60 \$20.60 Hauling/stacking 4.30 tons \$3.63 \$15.61 \$15.61 Crop insurance (75% Yield, 100% Price) 1 acre \$17.22 \$17.22 \$17.22 Interest on operating capital 7.61% \$3.48 \$3.28  Subtotal \$152.93 \$142.20  Ownership costs (excludes cost of land) Insurance 1 acre \$2.00 \$2.00 \$2.00 Machinery ownership costs 1 acre \$126.25 \$126.25 \$126.25 Irrigation equipment costs 1 acre \$8.25 \$8.25 \$8.25  Total costs	Harvesting						
Baling       4.30       tons       \$4.79       \$20.60       \$20.60         Hauling/stacking       4.30       tons       \$3.63       \$15.61       \$15.61         Crop insurance (75% Yield, 100% Price)       1       acre       \$17.22       \$17.22       \$17.22         Interest on operating capital       7.61%       \$3.48       \$3.28         Subtotal       \$152.93       \$142.20         Ownership costs (excludes cost of land)       \$136.50       \$136.50         Insurance       1       acre       \$2.00       \$2.00         Machinery ownership costs       1       acre       \$126.25       \$126.25       \$126.25         Irrigation equipment costs       1       acre       \$8.25       \$8.25       \$8.25         Total costs       \$289.43       \$278.70	Swathing	3	acre	\$4.03	\$12.10	\$12.10	
Hauling/stacking	Turning/raking	3	acre	\$1.39	\$4.18	\$4.18	
Crop insurance (75% Yield, 100% Price)       1       acre       \$17.22       \$17.22       \$17.22         Interest on operating capital       Subtotal       7.61%       \$3.48       \$3.28         Subtotal       \$152.93       \$142.20         Ownership costs (excludes cost of land)       \$136.50       \$136.50         Insurance       1       acre       \$2.00       \$2.00         Machinery ownership costs       1       acre       \$126.25       \$126.25         Irrigation equipment costs       1       acre       \$8.25       \$8.25         Total costs       \$289.43       \$278.70	Baling	4.30	tons	\$4.79	\$20.60	\$20.60	
Numership costs (excludes cost of land)   Subtotal   T.61%   \$3.48   \$3.28   \$152.93   \$142.20	Hauling/stacking	4.30	tons	\$3.63	\$15.61	\$15.61	
Subtotal       \$152.93       \$142.20         Ownership costs (excludes cost of land)       \$136.50       \$136.50         Insurance       1       acre       \$2.00       \$2.00         Machinery ownership costs       1       acre       \$126.25       \$126.25         Irrigation equipment costs       1       acre       \$8.25       \$8.25         Total costs       \$289.43       \$278.70	Crop insurance (75% Yield, 100% Price)	1	acre	\$17.22	\$17.22	\$17.22	
Ownership costs (excludes cost of land)       \$136.50       \$136.50         Insurance       1       acre       \$2.00       \$2.00         Machinery ownership costs       1       acre       \$126.25       \$126.25       \$126.25         Irrigation equipment costs       1       acre       \$8.25       \$8.25       \$8.25         Total costs       \$289.43       \$278.70	Interest on operating capital			7.61%	\$3.48	\$3.28	
Insurance       1       acre       \$2.00       \$2.00       \$2.00         Machinery ownership costs       1       acre       \$126.25       \$126.25       \$126.25         Irrigation equipment costs       1       acre       \$8.25       \$8.25       \$8.25         Total costs       \$289.43       \$278.70	Subtota	I			\$152.93	\$142.20	
Machinery ownership costs       1       acre       \$126.25       \$126.25       \$126.25         Irrigation equipment costs       1       acre       \$8.25       \$8.25       \$8.25         Total costs       \$289.43       \$278.70	Ownership costs (excludes cost of land)				\$136.50	\$136.50	
Irrigation equipment costs         1 acre         \$8.25         \$8.25         \$8.25           Total costs         \$289.43         \$278.70	Insurance	1	acre	\$2.00	\$2.00	\$2.00	
Total costs \$289.43 \$278.70	Machinery ownership costs	1	acre	\$126.25	\$126.25	\$126.25	
	Irrigation equipment costs	1	acre	\$8.25	\$8.25	\$8.25	
Net returns to owner for unpiad labor, management, equity and risk	Total costs	3			\$289.43	\$278.70	
	Net returns to owner for unpiad labor, manag	gement, equity a	and risk				
Above operating costs \$227.91 \$238.64	Above operating costs				\$227.91	\$238.64	
Above total costs \$91.41 \$102.14	Above total costs				\$91.41	\$102.14	

## **Breakeven Table - Alfalfa**

Net returns per acre above operating costs

Yield	Selling Price (\$/ton)							
(Ton/Ac)	\$78.57	\$83.57	\$88.57	\$93.57	\$98.57			
2.80	\$79.69	\$93.69	\$107.69	\$121.69	\$135.69			
3.30	\$114.76	\$131.26	\$147.76	\$164.26	\$180.76			
3.80	\$149.83	\$168.83	\$187.83	\$206.83	\$225.83			
4.30	\$184.91	\$206.41	\$227.91	\$249.41	\$270.91			
4.80	\$219.98	\$243.98	\$267.98	\$291.98	\$315.98			
5.30	\$255.05	\$281.55	\$308.05	\$334.55	\$361.05			
5.80	\$290.13	\$319.13	\$348.13	\$377.13	\$406.13			

## Assumptions

- Alfalfa already established. Harvested in June, August, September.
- 2. Interest computed on fertilization/herbicide costs for 6 months and operating costs for 3 months.
- 3. Machinery operating costs include: fuel, oil, repairs and labor.
- 4. Machinery ownership costs are allocated based on equipment used for each crop.
- 5. Machinery ownership costs include depreciation, interest, insurance, and housing.

Budget prepared by: E. Bruce Godfrey, Cody Bingham and Dean Miner