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Buying and Selling Hay on the Stump

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What Is It Worth?

ESTABLISHING A FAIR PRICE for hay on the stump can be a little tricky, but a good rule of thumb is to set a value that takes into account the seller's cost of production and the buyer's estimated value less the cost to harvest. In this publication, we address both the buyer's and the seller's requirements. Calculating the costs may take some effort, but following our simple five-step process will enable both parties to make a profitable decision.

- Step 1: Estimate the grower's costs.
- Step 2: Establish a value for the hay.
- Step 3: Determine the yield.
- Step 4: Estimate the harvester's costs.
- Step 5: Negotiate a fair price.

Before discussing step 1, however, we need to identify a hypothetical farm. Suppose you operate an irrigated farm in southern Idaho, whose average yield is about 6 tons per year with three cuttings.

Step 1: Estimate the Grower's Costs

Account for all costs of production (operating and ownership). Operating costs include fertilizer, chemicals, irrigation, labor, machinery (fuel, oil, and repairs), and the interest on operating capital. Ownership costs include land rent, general overhead and management, and an amortized establishment cost (the new seeding establishment costs spread out over the life of the hay stand). The following example (Figure 1) shows the grower's costs to produce alfalfa hay on a per-acre basis ($575 per acre) broken down to the cost per ton ($96 per ton).

As a grower, if you keep track of your own production costs and use an enterprise budget, this part is easy. If you don't know your direct costs, estimate them or use the University

GROWER'S COSTS PER ACRE	
Operating Costs	
Fertilizer	$80
Chemical	20
Irrigation	90
Labor	40
Machinery (fuel, oil, repairs)	10
Operating Interest	10
Ownership Costs	
Land Rent	$200
Overhead & Management	50
Amortized Establishment	75
Total Cost per Acre	**$575**
Grower's Cost per Ton	***$96***

Figure 1. Grower's costs per acre.

of Idaho budgets as a starting point. Crop budgets for the commodities can be found on the U of I Idaho AgBiz website at https://www.uidaho.edu/cals/idaho-agbiz/crop-budgets.

Step 2: Establish a Value for the Hay

Because a buyer needs to establish a value for hay that will be harvested, check recent market reports for local prices or use historical prices to get a value benchmark. You may also want to consider the cost of weather (and perhaps yield risk) and adjust your price to compensate for these factors.

For example, let's use an expected hay value of $150 per ton as a base and decrease that by $10 per ton to account for weather risk. Weather risk is difficult to put a price on, but it is real, and it can be costly, so use your own judgment when it comes to placing a value on it. The estimated price in this example is $140 per ton. We'll use this price to calculate how much we can afford to pay for hay on the stump in step 4.

Step 3: Determine the Yield

Estimate yields before the harvest or weigh the crop after harvest to get actual yields, then set up agreements with your buyer. In some cases, it may be best to agree on a set percentage of the hay yield after the harvest rather than trying to estimate the yield before the harvest. For example, use an estimated yield of 6 tons per acre to calculate the grower's costs and the harvester's costs on a per-ton basis.

Step 4: Estimate the Harvester's Costs

The harvester's costs include swathing, raking, baling, hauling, and stacking. Use custom harvest rates or calculate your actual costs. The costs should include equipment depreciation, fuel, oil, lube, repairs, labor, transportation to the field, operating interest, twine, and other related expenses.

The cost (Figure 2) to put up all three crops is $198 per acre or $33 per ton based on a 6 ton yield. If we use the base price of $150 per ton and subtract $10 for weather risk and $33 for harvest costs the value to the harvester is $107 per ton.

HARVESTER'S COSTS PER ACRE		
Swath	$18 x 3 crops	$54
Rake	$6 x 3 crops	18
Bale	$16 x 6 ton	96
Haul/Stack	$5 x 6 ton	30
Total Cost per Acre		**$198**
Total Cost per Ton		***$33***
Expected hay value		$150
Less harvest cost		$33
Less weather risk		$10
Harvester's Value per Ton		***$107***

Figure 2. Harvester's costs per acre.

Step 5: Negotiate a Fair Price

After you calculate the seller's costs to produce the hay and the buyer's hay value minus harvest costs, begin negotiating a fair price (Figure 3). The maximum price the harvester would be willing to pay is the estimated hay value less harvesting and risk costs. The minimum price the grower would be willing to sell at is his cost of production. These two values set the effective ceiling and floor prices of a fair agreement.

In this simple example, a fair market price for hay on the stump is between $96 and $107 per ton. A price within this range will be a win-win for the grower and harvester. Use the negotiated price to establish an annual per-acre price or a per-cutting price if you need to.

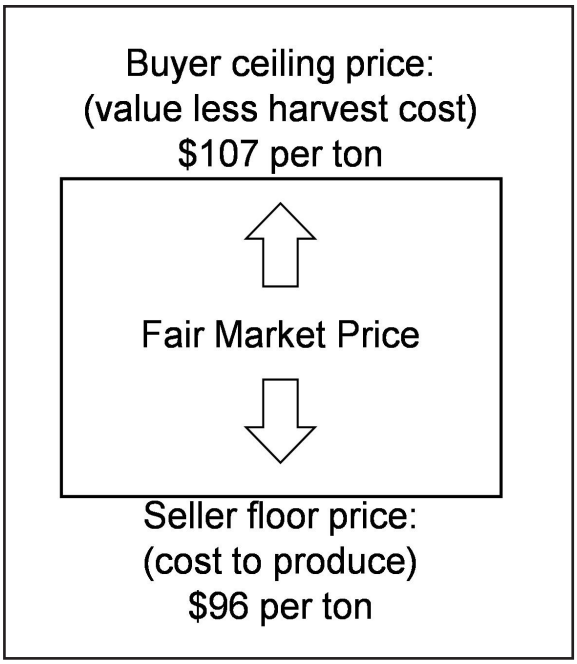

Figure 3. Negotiating a fair market price.

Remember to Put It in Writing!

Finally, it's always a good idea to put these agreements in writing just to make sure everyone is on the same page. It can help both parties to remember the details, thus removing some of the possibility for a misunderstanding. Indeed, good business relationships tend to last longer when we put the details of transactional communication in writing. In this case, record the acreage, price, yield, payment date, and other details to create a solid, simple contract.

When you begin to crunch your own numbers, make sure to consult UI Extension. We offer several tools that may be helpful: crop enterprise budgets (costs and returns estimates), a custom rates guide, and a machine cost calculator. Explore these options in the Idaho AgBiz webpage (click on Crop Enterprise Budgets, Publications, and Management Tools) at https://www.uidaho.edu/cals/idaho-agbiz.

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