



The Business Side of Dairy Farming A Perspective from the Plain Community (November 1995)

Crop Costs

Have you ever figured out what it costs you to grow a ton of corn silage or hay? It's pretty simple once you do it several times. There are several ways to calculate depreciation, land value, and other costs, but we will explain the method we use.

First, we make a list like this:

| Alfalfa Hay | |
|-------------------------------|-------------|
| Seed | \$414.16 |
| Fertilizer | 1768.67 |
| Chemicals | 448.19 |
| Lime | 251.09 |
| Preservative | 320.96 |
| Baler Twine | 180.72 |
| Crop Consultant | 383.78 |
| Horse Feed & Hay | 1051.53 |
| Fuel | 481.93 |
| Equipment & Mules | 4115.09 |
| Rent 50 acres @ \$30/acre | 1500.00 |
| 9% interest | 152.00 |
| Equipment Repairs | 4895.04 |
| Labor-433 hours @ \$4.50/hour | 1949.10 |
| Total cost for 50 acres= | \$17,912.26 |
| \$17,912 50=\$358.24/acre | |
| 1995 yield: 3.4 tons/acre | |
| \$358.24 3.4=\$105.36/ton | |

It is important to use accurate figures for yields, not averages or estimates, but the actual yield. Otherwise, the calculation will not be realistic enough to be useful.

Because we pay for seed, fertilizer and other inputs in December or January (we get at least a 1% price break for buying early), we include 9% interest on the amount we borrow until the first harvest (six months for hay, nine months for corn).

To figure the cost for equipment and mules, we list all the equipment needed for each crop with the current market values (what we think we could get if we sold the equipment now). Here's the list for hay:

| | |
|---------------------------|--------|
| Mower crimper w/engine | \$5500 |
| Rollerbar rake | \$2000 |
| Manure spreader | \$1100 |
| Wagons | \$2300 |
| Plow | \$900 |
| Mules (2) | \$4350 |
| Elevator w/hydraulic unit | \$2200 |
| Cutter | \$1200 |
| Forecarts & harnesses | \$2000 |

This is only part of the list, but it shows how it may be

done. Some of the equipment is used for both hay and corn silage, so we have totals for three categories: Hay-only equipment (baler, mower, etc.): \$10,140; Corn-only equipment (binder, planter, etc.): \$1,440; Equipment for hay and corn silage: \$26,132.

To adjust the cost for equipment used for both crops, we divide the total value of all equipment by the total number of crop acres and multiply that amount by the number of acres for each crop (we have 50 acres of hay and 20 of corn):

\$26,132 70x50 = \$18,665.71 for hay
\$26,132 70x20 = \$7,466.29 for corn

Then we add those amounts to the hay and corn only totals:

Total Value of Hay Equipment:

\$10,140+\$18,665.71=\$28,805.71

Total Value of Corn Equipment:

\$1,440+\$7,466.29=\$8,906.29

Assuming the hay equipment will last seven years before we need to replace it, we divide these total values by seven to get a cost per year (\$28,805.71 7=\$4,115.10/year for hay equipment).

The figure for equipment repairs for each crop is also calculated by dividing the total amount spent for repairs by the total crop acreage, then multiplying that figure by the number of acres for each crop.

Here's our list of crops for corn silage:

| | |
|---------------------------|----------|
| Seed | \$369.93 |
| Fertilizer | 153.51 |
| Chemicals | 1461.34 |
| Crop consultant | 153.51 |
| Binder twine | 69.28 |
| Rent 20 acres @ \$30/acre | 600.00 |
| Horse feed | 420.61 |
| Fuel | 365.10 |
| Equipment & mules | 1309.19 |

| | |
|--------------------------------|-----------|
| Equipment repairs | 1958.01 |
| 9% interest | 186.85 |
| Preservative (urea) | 372.07 |
| Labor (464 hours @ \$4.50/hr.) | 2088.00 |
| Total cost for 20 acres: | \$9507.40 |

Cost/acre: \$475.37

1995 corn silage yield/acre: 18.1 tons

Cost/ton: \$26.26

You may notice that some of our input costs are different from your own. For example, because we can make a profit by making hay but could buy corn silage cheaper than what we can grow it, we have decided to put as many acres in hay as possible. We now have each field in corn only one year before we put it back into hay. Therefore, our fertilizer costs may be a bit lower.

This spring we tried one field that was in alfalfa last year and sprayed with Roundup last fall, sowing alfalfa back into it, and it appears as though it worked. Because we know what our costs are, we would like to switch to all hay if it works out for us. So next spring we may try two fields alfalfa to alfalfa and see how that works.

The reason we quit raising corn for picking several years ago was because taking \$475.37 per acre and dividing by 4 tons per acre, our cost was \$118.84 per ton of ear corn! Even this year with the price of corn high, we can buy all the ear corn we want for \$80-\$90 per ton.

Most farmers would probably be surprised at what the cost of production for each crop actually is. By knowing exactly what the cost is, crops or cropping rotation can be changed to make more profit based on facts instead of some wild guess. Have fun calculating, and if you want to, please let us know what you find.

Send your ideas or questions in letters addressed: Business Side Column, c/o Lancaster Farming, Box 609, 1 E. Main St., Ephrata, PA 17522. See you next month!

Lancaster DHIA To Meet

MANHEIM (Lancaster Co.)—Lancaster DHIA annual meeting and banquet will be held Tuesday, Dec. 5, at 11:30 a.m. at Good 'n Plenty Restaurant in Smoketown.

A delicious ham dinner will be served followed by a short business meeting.

ness meeting.

All members and friends are invited to come and learn about new events happening in Lancaster DHIA. New by-laws will be

approved at this meeting.

Tickets can be purchased at the cost of \$11.50 from any Lancaster DHIA technician or by calling the office at (717) 665-5960.

PA DHIA

Invites all Lancaster and surrounding county dairymen to attend the
Milk Urea Nitrogen
workshops on

November 20
Willow Street
Willow Valley Restaurant

November 21
New Holland
Yoder's Restaurant

November 22
Mount Joy
Country Table Restaurant

Featuring: **Dr. Linda Baker, VMD**, Research Associate in Nutrition and Animal Health Economics

Workshop times are 11:00 a.m. - 1:00 p.m.

* Lunch will be provided

* Come listen to the advantages of MUN testing



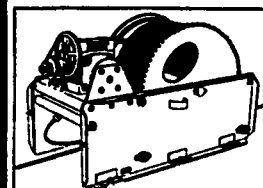
1-800-DHI-TEST
(1-800-344-8378)



CABLE SCRAPER SYSTEM FOR FREE STALL BARN

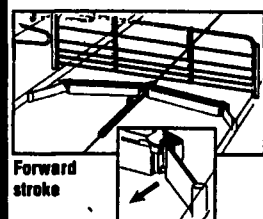


DRIVE UNIT WITH 3/8" STAINLESS STEEL CABLE

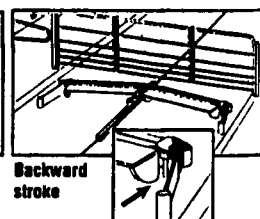


- Drive chain #80.
- Shaft end of reducer supported by an extra roller bearing to eliminate the overhung load of drive chain.
- CONTROL PANEL:** Multi-function with programmable clock, adjustable overload relay and controls to operate the system in continuous or manual mode.

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Forward stroke



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- Scraper angled shape brings manure towards center for improved lateral stability.
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- During backward stroke, the blades instantly tilt 4-1/2" upward above

- bottom of alley to prevent dragging of manure.
- 16" DIA. CORNER WHEELS:** Mounted on greasable taper roller bearings protected by 2 seals.



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