

# Staff Paper Series

Staff Paper P75-31

March 1975

Outlook For Livestock vs. Grain Farming

by  
Paul R. Hasbargen

Department of Agricultural and Applied Economics

University of Minnesota  
Institute of Agriculture  
St. Paul, Minnesota 55108

Staff Paper P75-31

March 1975

Outlook For Livestock Vs. Grain Farming

by  
Paul R. Hasbargen

Staff Papers and published without formal review within the Department of  
Agricultural and Applied Economics.

## OUTLOOK FOR LIVESTOCK VS. GRAIN FARMING\*

by

Paul R. Hasbargen

Agricultural Economist, University of Minnesota

Livestock producers enjoyed record net incomes in 1973. But currently it is the cash grain producers who are paying high income taxes on 1974 farm earnings while the livestock farmers have fewer taxes to pay than a year ago.

What does the future hold? Will grain farming continue to give higher returns to farmers in west central Minnesota or will the pendulum swing back in favor of the livestock producer? This article examines this question for 1975-76 and for the longer run.

### Crop Outlook, 1975 - 1976

Grain prices climbed through most of 1974. They climbed early in the year because livestock producers were feeding more grain than expected as they carried livestock to heavier market weights. Then came a poor spring planting season. This was followed by droughts and finally by early freezes--not only in Minnesota but through much of the northern corn-belt.

Grain price movements in 1975 could be just the opposite of 1974. At least, they have started out that way with the sharp downward price movements in January and February. These price breaks were due primarily to the larger than expected cutback in grain feeding to livestock. (For example, there were 37% fewer cattle reported on grain feed in the seven major feeding states on February 1, 1975 than on that date a year earlier.)

The wheat situation has changed primarily because of reduced expectations in wheat feeding to livestock in Russia and Western Europe as well as in the United States. With lower prices on the coarse grains, these are being substituted for wheat in livestock rations, thereby causing some cancellations in earlier placed wheat orders.

Current slow economic growth rates and high inflation rates in most of the developed countries are curbing their demands for imports. To the extent that they can delay grain purchases until a new, perhaps larger world grain crop is in, they will do this to save on foreign exchange. However, if world crop prospects began to dim, there would be a scramble to increase orders already this summer.

The weather, then, is the big question mark relative to crop prices this year. And this includes weather in other countries as well as in the United States. Good weather worldwide could push U.S. corn prices down to \$2.00 already this fall. Poor weather in other

---

\* Prepared for Morris, Minnesota newspaper, March 20, 1975, farm edition

major producing countries as well as in the U.S. could push them toward the \$4.00 level.

As of mid-January, winter grain crops in the Northern Hemisphere were reported slightly below normal. Europe, North Africa, Pakistan and the USSR were looking at reduced crops. Partially offsetting these were the better crop prospects in India, Turkey, Iran and China. Winter grain crops account for 30% of world grain production.

It is too early to speculate on the size of the U.S. crop that might be produced in 1975. Much of the western cornbelt--including western Minnesota--has low subsoil moistures. Thus, odds are that yields on long season crops will not be up to normal. Higher production costs in the face of currently lower grain prices will moderate acreage and fertility levels. But, weather remains the big factor!

One big crop in the U.S.--coupled with normal production around the world--will put crop prices back to near production cost levels (about \$2.00/bushel on corn, \$5.00 on beans and \$2.75 on wheat). Big crops in 1975 and 1976 could push prices below production costs necessitating a new government support level to protect crop producers.

Thus, given "normal weather" around the world for two years, grains could be in "surplus" again relative to prices crop producers feel are necessary to maintain current land values. If grain prices are allowed to drop below current production costs, land prices would decline. This would allow a downward adjustment in production costs by lowering land rental rates. To what extent lower land prices are desirable is in part a political question that will be debated between current land owners and non-land owners. The question being, to what extent should current land owners be allowed to keep all of the windfall gains they obtained in land values because of worldwide short falls in grain production in 1972 and 1974?

#### Livestock Outlook, 1975 - 1976

Many livestock producers used red ink to calculate earnings on their livestock enterprises in 1974. Losses were especially high in cattle feeding and in producing feeder cattle. Some hog enterprises also failed to cover feed and operating costs and labor returns were low in dairy.

However, as area livestock producers know, the typical livestock producer in western Minnesota raises most of his own feed supply. In fact, crops account for 50% to 80% of the value produced on most livestock farms. Thus, most western Minnesota livestock producers offset their livestock losses in 1974 with higher crop returns. (The specialized livestock feeder who purchased a large portion of his feed took large total business losses in 1974.)

Currently, livestock producers are making major adjustments in production because of the high grain prices and related livestock enterprise losses in 1974.

There were 37% fewer cattle on feed than one year ago in the seven major feeding states on February 1.

Cow slaughter is running 30% higher than a year ago--suggesting that cow herd owners are starting to cut back beef cow numbers.

Hog producers are planning a 15% cutback in hog farrowings this spring.

Dairy producers are cutting back in grain feeding levels by 14%.

Turkey producers in the nine reporting states cut their February hatch by 19%.

What will be the result of these cutbacks to high grain prices? First, grain prices will fall because of declining demand for feed. This has already happened.

Then, as less meat is available, consumers will bid prices up and higher livestock prices will follow.

Finally, if grain prices continue to drop because of larger worldwide production, the livestock enterprises will be very profitable and the crop enterprises will again appear marginal.

This change over to a favorable economic outlook won't occur for all livestock at the same time.

Hog production and poultry production will be down enough already in 1975 to get rid of red ink. In fact, it looks like the hog enterprise will be quite profitable in 1975 and 1976 with hog prices over \$40 for much of this period.

Beef producers, however, can't reduce production quite as rapidly. In fact, while they attempt to reduce cattle numbers, slaughter and production will actually be higher in 1975 and 1976. Thus, prices and returns will be very low during this period--especially for the cow-calf enterprise. Improved returns to the cattle feeding operation can come sooner, but the cow enterprise will probably not see all production costs covered until 1978.

#### Longer Run Outlook

So, what about the next ten years--which looks more promising-- crop or livestock production?

The first point to make in answering this question has already been made--that is, in either case there is apt to be cycles of profitable and unprofitable years. And, the more a farmer specializes the more income risk he takes. Thus, the young farmer who is not in a strong financial position might be best advised to be somewhat diversified.

Crop yields vary as well as crop prices. This is especially true in the low rainfall, short growing season counties of western Minnesota. Thus, the corn grower with cattle can insure himself against more corn yield variation risk than can the cash crop producer.

This is one of the reasons that cattle feeding has been popular in the Morris area--beef cattle provide a ready market for drought or frost damaged corn. (In some areas of central Minnesota where livestock production has been sharply curtailed, the September 2nd freeze in 1974 caused very severe corn grain yield reductions. There was no silage option for these farmers.)

Therefore, livestock can also provide a market outlet for weather damaged crops.

However, although the specialized farm is subject to more income variation, an offsetting consideration is that of the operator's skill and knowledge. It is more difficult to keep informed on many enterprises than it is on just a few. Therefore, the specialized crop producer tends to get a higher net income per acre of crops than the combination crop and livestock producer. So, if livestock is kept, it will usually be desirable to limit the number of livestock enterprises as well as the number of different crops grown.

A third consideration is the amount of land that is available to the individual farmer. The operator with a limited land base will, of necessity, need to keep livestock if he wishes to make a living from the farm business.

Farmers with a half section of land or less will need fairly intensive livestock programs--probably in dairy or hogs-- in order to make a living.

Farmers with a half section to a full section can start to consider beef as well as hogs.

Farmers with over a section of land can specialize in crop production or have some type of beef program to utilize farm produced forages and crop refuse.

The larger units, of course, require more capital and should produce larger net incomes over a period of years. But, the smaller units under the management of a skillful livestock man can be competitive in net earnings. This is especially true of hog operations since this enterprise has consistently been a good income generator on Minnesota farms.

The following table shows the relationship between farm size, enterprise choice, farm earnings and returns on investment on southern Minnesota farms. The information shown is from farm management records for the six year period 1968-73.

<u>Item</u>	<u>Dairy Farms</u> <u>35 - 44 cows</u>	<u>Hog Farms</u> <u>1, 000 hogs</u>	<u>Hogs plus</u> <u>cattle feeding</u>	<u>Beef feeding +</u> <u>cash crops</u>	<u>Cash crops</u>
Tillable acres	193	201	319	431	477
Capital per worker	\$60,686	\$81,501	\$126,778	\$152,344	\$140,928
Operator's earnings	17,157	20,992	22,859	20,003	17,253
Rate earned on investment	9.8%	17.0%	13.6%	11.5%	10.9%

Note that capital requirements are substantially less on dairy and hog farms. (All capital is reported on basis of original cost--not today's land values.)

Note that the hog farms yield the highest average rate of return on investment when annual land price changes are not considered. (A labor payment of \$7,500 has been charged for the operator.)

Note that the average six year earnings of the crop farmers was less than for all groups except the small dairy farms. This was despite the fact that they had more acres and that the corn yield was the highest on these farms--105 bushels/acre.

However, a fourth factor to consider when comparing the merits of land expansion vs. livestock expansion is inflation. Annual changes in the value of real estate are not included in the above figures. If it were, the larger acreage units would show relatively larger annual earnings. And, since the crop farms were the largest, the operator of these farms probably showed the highest net worth gains over the past six to eight years.

Given governments' propensity to spend, inflation will probably continue at fairly high rates in the coming decade. So, after some reduction in land prices from the level of sales quoted last fall, land can be expected to trend upwards once again--especially if a floor is put under crop prices.

### Summary

Currently, crop production is more profitable than livestock production.

Next year, livestock--except for beef cows--may be more profitable than crops.

For the next ten years the farm manager must analyze several factors when considering whether to produce more crops or more livestock. The important ones besides his personal likes and skills are:

Risk--Income variation will be greater for the man who specializes in either crop or livestock.

Income level--Specialization will probably yield a higher net income because the manager can handle a larger unit and he will be more proficient in his management.

Size of farm--Without adequate land, the "no livestock" option is hardly feasible unless there is a source of non-farm income.

Return on investment--Rate of return can be higher with a well managed livestock program--at least before considering land appreciation.

Land appreciation--After some possible downward adjustment in land values during the next year or two, inflation will probably again push land prices up.

Thus, the man who wants to accure a large net worth may do best via the land expansion route.

But, the man who wants to enjoy more regular annual earnings might best have a well balanced crop and livestock program.