**Benchmarking Helps Make Decisions**

By Jason Fewell, North Dakota Farm Management Education Program Instructor

Developing plans for your farming and ranching operation is a critical process. An important part of planning for a new year includes analyzing the past year and determining which crops and livestock enterprises were profitable and which were not. Part of the annual analysis can include benchmarking crop and livestock enterprises against yourself and others.

Some farmers and ranchers may see little value in benchmarking, even though everyone benchmarks their operation, maybe without realizing it. Benchmarking against yourself provides you with a way to compare changes year-to-year on your own operation. Benchmarking yields from one year to the next is a good exercise. Determine what internal and external factors caused crop yields to be higher or lower than last year. Was it weather-related, good or poor seed selection, accurate or inaccurate fertilizer application, or some other factor? You can benchmark enterprises on a field level too. Not all farmland is created equal. It can be useful to benchmark net returns per field to determine if inputs should be varied across fields to earn the same return. For livestock producers, benchmark pregnancy percentages, live births, weaning weights, or production (milk, wool, etc.). Keeping accurate records helps provide you with the necessary data to look at changes from one year to the next.

Benchmarking against others allows you to analyze your operation to determine if you are over- or under-utilizing inputs. It is especially useful to compare input costs by enterprise. For example, look at your yields and input use by crop to see if you are spending more for the same yield than average producers.

A valuable resource exists in data generated by the North Dakota Farm Management Education Program (NDFME). Average production and financial data are compiled from farmers enrolled in the farm management programs across North Dakota. Annual reports are available at <http://www.ndfarmmanagement.com/reports.html>. There, you can view reports for your region of the state and compare your farm’s financial performance to average producers in the area. Benchmarking information can also be retrieved from the FINBIN database housed at the University of Minnesota’s Center for Farm Financial Management at <https://finbin.umn.edu/>. You can make whole farm and enterprise level comparisons with several financial and production measures and see where you stand with respect to the average as well as those in the low 20%, middle 40-60%, and high 20% levels of profitability.

The chart below shows 2019 spring wheat returns from 145 enterprises on cash rented land in North Dakota. You can see that spring wheat gave an average net return over labor and management of $19.59/acre with returns of −$98.05/acre, $7.74/acre, and $93.36/acre for the low, middle, and high 20% profitability groups, respectively. Yields, prices, crop insurance, government payments, and costs can all be analyzed at each profitability level to see where your operation fits. For instance, the low 20% of profitability had an average yield of 42.83 bu./ac and selling price of $4.55/bu.; the high 20% produced 63.25 bu./ac with a selling price of $5.12/bu.; and the average produced 53.10 bu./ac and sold at $4.90/bu.

This information can also be used to make marketing decisions. When looking at the same spring wheat enterprise, we see that the cost of production was $6.84/bu. for the low 20% profitability level, $3.64/bu. for the high 20%, and the average cost of production was $4.53/bu. Knowing the cost of production is important when developing a marketing plan. If your costs are higher than the current selling price, evaluate your opportunities to lower costs or increase production. Benchmarking costs such as fertilizer, seed, land rent, or machinery costs can help you make these decisions.

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| 2019 North Dakota Spring Wheat Returns ($) on Cash Rented Land, Sorted by Net Return accessed from <http://www.ndfarmmanagement.com/reports.html>. | | | | | |
|  | | Avg. of All Farms | Low 20% | 40 - 60% | High 20% |
| Yield per acre (bu.) | | 53.10 | 42.83 | 55.01 | 63.25 |
| Value per bu. ($/bu.) | | 4.90 | 4.55 | 4.86 | 5.12 |
| Gross return per acre ($) \*\* | | 323.44 | 283.93 | 313.93 | 382.13 |
| Selected expenses ($/ac): | |  |  |  |  |
|  | Seed | 17.67 | 22.82 | 17.44 | 17.06 |
|  | Fertilizer | 63.70 | 79.98 | 64.05 | 62.07 |
|  | Repairs | 22.56 | 33.17 | 24.16 | 18.13 |
|  | Land Rent | 57.79 | 74.30 | 56.41 | 54.74 |
|  | Interest | 9.91 | 12.75 | 10.62 | 8.87 |
|  | Machine & Building Depreciation | 27.83 | 35.96 | 25.79 | 29.01 |
| Total Direct & Overhead Expenses per acre | | 290.89 | 366.02 | 293.47 | 277.18 |
| Labor & Management Charge per acre | | 22.49 | 23.59 | 22.06 | 22.18 |
| Net Return over Labor & Mgmt. per acre | | 19.59 | −98.05 | 7.74 | 93.36 |
|  | |  |  |  |  |
| Cost of Production with Labor & Mgmt. ($/bu.) | | 4.53 | 6.84 | 4.72 | 3.64 |
| \*\*Note that gross return includes ad hoc government payments, crop insurance, and miscellaneous crop income but not cyclical government payments (e.g., ARC/PLC). | | | | | |

While benchmarking is useful to assess problems, use care to consider variables that can change each year and create anomalies. Extreme weather is one of the most common causes of drastic changes from year to year and can often make it difficult to benchmark yields or profits. It may be useful to benchmark three- or five-year averages to “normalize” results. It is important to note that economies of scale, farm size, and type of farm can affect some benchmark values. Be careful when benchmarking financial benchmarks on a whole farm basis due to differences in types of crop and livestock produced. For instance, benchmarking a crop farm against a livestock farm is not likely useful because of the differences in production, commodity price cycling, costs, and returns. Benchmark crop and livestock enterprises separately to make fair comparisons.

To learn more about farm financial benchmarking and other financial questions on North Dakota farms and ranches, see the North Dakota Farm Management Education Program website at [www.ndfarmmanagement.com](http://www.ndfarmmanagement.com). Reports can be viewed on a regional or statewide basis. Contact information is also available for farm management educators throughout the state.

For more information on the North Dakota Farm Management Education Program, contact Craig Kleven, state supervisor for agricultural education, at [crkleven@nd.gov](mailto:crkleven@nd.gov) or 701-328-3162. The ND Farm Management Education Program is sponsored by the North Dakota State Department of Career and Technical Education.