AgSource
Cooperative Services
A Subsidiary of Cooperative Resources International

Understanding the HERD REPORT CARD

Understanding Your Herd Report Card

The Herd Report Card provides AgSource members with a different look at their DHI data. Rather than compare to your herd's past performance, this report allows users to graphically measure their herd performance against comparable operations.

The Herd Report Card makes extensive use of percentile rankings. In most cases, the higher the percentile ranking, the better. Having a 90th percentile rank on RHA Milk means your herd's production is very high and only 10% of the herds in your category are higher. On the other hand, a high percentile ranking for "Weighted SCC" means your herd has a very low somatic cell count and only 10% of the herds in your group are lower. If your herd is at the 10th percentile, 90% of the herds in your grouping are outperforming yours.


Look at low percentile rankings as opportunities. If all your rankings are above the 90th percentile, you may have limited options for raising your income. On the other hand, identifying and improving low percentile rankings can have a significant effect on your bottom line.

Who will I be compared to:

Herd Report Card comparison groups are determined by herd and/or breed composition. If your herd is 75% or more Jersey, your herd will be compared to all other AgSource Jersey herds, regardless of herd size. If your herd is 75% or more Holstein, it will be compared to like-sized Holstein herds. There are five different comparison groups:
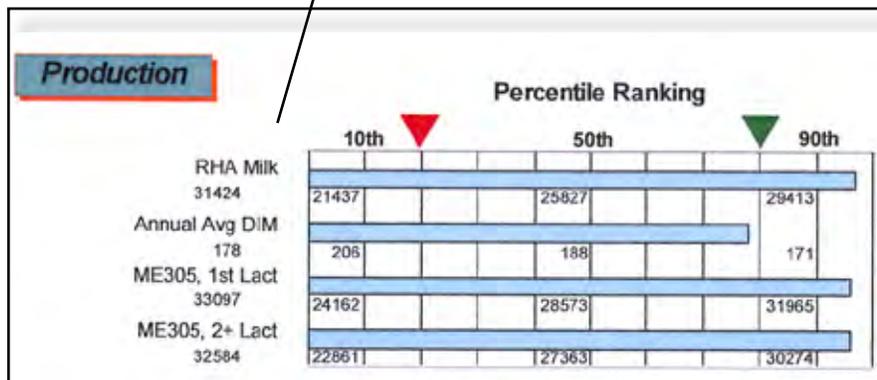
- Herds with < 100 cows
- 100-250 cows
- 251-500 cows
- 501-1,000 cows
- Herds with > 1,000 cows
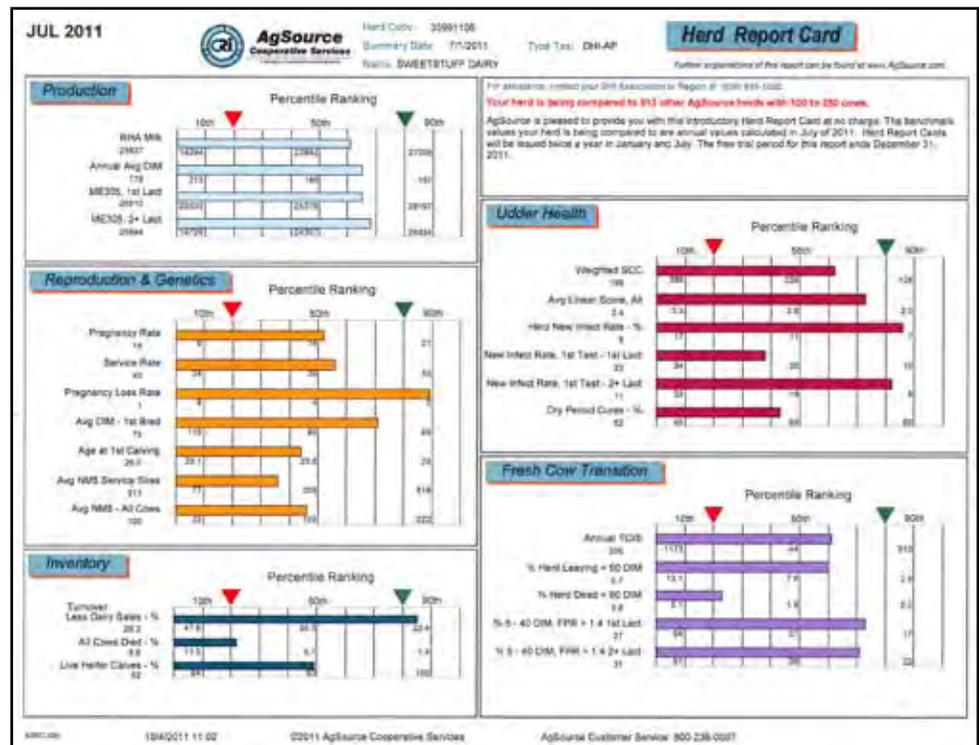
Total cow numbers in the AgSource database for these two breeds are sufficient to calculate meaningful benchmark values by breed. For all other AgSource herds, comparison groups are based on size of herd. Your herd will be compared to all other AgSource herds (including Jerseys and Holsteins) regardless of breed composition, based on the herd sizes listed above. A note in the upper right corner of the Herd Report Card indicates the size range and how many other herds your is being compared to.

Herd Report Card benchmarks are calculated on January 15 and July 15. Your most recent test day's (before January 15 and July 15) annual measures are used in calculating these benchmarks for your group. Also, your herd's own numbers that are displayed on the Herd Report Card are those from the previous test day before January and July 15.

The Front Page

Five benchmark categories are summarized on the front page of the Herd Report Card: *Production, Reproduction & Genetics, Inventory, Udder Health and Fresh Cow Transition*. Each category contains monitors for the area's key management parameters.

Front page graphs all have a similar look and feel. The 10th, 50th, and 90th percentile values are highlighted and printed on the graph. The 20th and 80th percentiles are designated with red and green triangles. Your herd's values are printed outside of the graph under the name of each measure.

Production

This section lets you compare your herd's production to other herds. The **RHA Milk** comparison is valuable for comparing your herd's overall long-term production. Both **ME 305, 1st Lact** and **ME305 2+ Lact** averages are valuable. If one of these measures has a significantly lower percentile ranking than the others, pay special attention to that group. For example, if your RHA is at the 80th percentile, your 2+ Lactation cows are at the 90th percentile and your 1st lactation cows are at the 60th percentile, start asking what is different about your management of the two lactation groups and identify ways to improve the performance of the younger cows. You can track your herd's results monthly in the Herd Summary, Block E.

Annual Average DIM is often used to measure herd reproductive management. All milking cows are included in this calculation. Each test day, the number of days between when each cow calved and the current test day is calculated. This is her "Days in Milk" or "DIM". This value is displayed with each test day's results in Block A of the Herd Summary. The "Annual Avg. DIM" figure on the Herd Report Card is an annual average. Having a low Annual Average DIM and therefore a high percentile ranking would indicate good reproductive management. However, since this is measuring the average DIM of all cows in the herd over the past year, which is based on reproductive management two years ago, there is considerable lag time in using this as a reproductive management measure. High turnover also lowers "Average DIM" since that herd may have less late lactation cows.

"Pregnancy Rate", in the Reproduction and Genetics section of the Herd Report Card, is a much better measure of herd reproductive management. Average DIM is a better tool for helping interpret the RHA Milk measure. If your herd's Annual Average DIM percentile ranking is low, this makes it more difficult to have a high RHA since many of your cows are consistently late in lactation.

Both the **ME 305 measures** are lactation averages and are not affected by the Average DIM value. ME 305 lactation average is the average of all 305 days or less lactation's total production adjusted for mature equivalency of all cows currently in the herd and those that were sold or died in the most recent test day interval consisting of:

> Each cow currently milking that is <305 DIM – uses her current 305 projected ME and
>
> Each dry cow – uses her just completed ME305 and
>
> Each milking cow with over 305 days – uses her recently completed ME305.

Reproduction & Genetics

In order to improve the accuracy of benchmarks in this category, herds with less than 1.5 services per conception (indicating incomplete information) are not included in the calculations. Herds with less than 1.5 services per conception will not have any information in the reproductive sections on either the front or the back of their copies of this report.

Pregnancy Rate is the percent of eligible animals becoming pregnant in a 21-day period. The Pregnancy Rate on the Herd Report Card is a weighted average of 21-day Pregnancy Rates over the past year. Many consultants regard Pregnancy Rate as the Gold Standard for measuring herd reproductive performance.

All cows in the herd during the past twelve months are included in the calculation.

Service Rate is the percent of cows eligible to be bred that actually are successfully bred in each 21-day period going backwards from the current test day. The most important component of successful herd reproductive management is getting semen into cows. If a herd's Pregnancy Rate is not satisfactory, this is the first number to look at.

All cows in the herd during the past twelve months are included in the calculation.

A **Pregnancy Loss** is noted when a cow is confirmed pregnant, but is later either rebred or recorded open before her due date. Many times producers will simply ship a cow that loses a pregnancy and record her as sold on the next test day. The accuracy of the Pregnancy Loss measure can be improved if the cow is recorded as open and then reported as sold. Both of these entries can be recorded on the same test day. All cows in the herd during the past twelve months are included in the calculation. Heifers that have not yet calved are excluded.

"Avg DIM 1st Bred" is another important measure for managing herd reproduction. A herd may have a relatively long Voluntary Waiting Period, however if they follow an aggressive heat detection and or synchronization program, this number can still be low. All cows in the herd during the past twelve months are included in the calculation.

"Age at 1st Calving" is the average calving age (in months) of all heifers calving for the first time over the past twelve months. All heifers calving in the herd during the past twelve months are included in the calculation regardless of whether or not they are still in the herd today.

"Avg NM$ Service Sires" is the most recent service sire used on all heifers and cows in the herd. Whenever a service sire is not identified, "Unidentified Bull's" NM$ values are used. Having large numbers of these will not help your herd's percentile ranking.

"Avg NM$ - All Cows" is the average NM$ of the sires of every cow currently in the herd. Whenever a sire is not identified, "Unidentified Bull's" NM$ values are used. Having large numbers of these will not help your herd's percentile ranking.

Inventory

Selling replacements to other producers is considered a strength and a sign of good management when herd size is kept stable and production is increasing. Therefore, AgSource emphasizes **Turnover Less Dairy Sales** as a management measure instead of just overall turnover. While many of the Herd Report Card measures are very cut and dried that 90th percentile and above are superior to lower percentile rankings, Turnover Less Dairy Sales is more vague. Especially if a member is not selling cattle for dairy purposes, a very low turnover may be indicative of problems raising calves or it may indicate a very high average age for the herd.

All Cows Died -% is a number you want to keep low in your herd, which translates into a high percentile ranking. The numerator in this calculation is the number of cows that died in the last twelve months. The denominator is the total number of cows in the herd each test day over the past year divided by the number of test days in that period.

Live Heifer Calves - % is the percent of all heifer calves born on the farm in the last year that lived at least 48 hours.

Udder Health

The **Weighted SCC** is the average calculated over the past twelve months for your herd. This value is in Block A of your Herd Summary. It is in the top line on the left half of the table.

Avg Linear Score, All is the actual average of all Linear Scores in your herd over the past twelve months. While the weighted SCC calculation gives twice the emphasis to a cow milking 150 pounds a day compared to one milking 75 pounds per day, the average Linear Score (LSCR) is calculated for each cow based on her SCC and then an actual average is calculated. LSCR is valuable for estimating milk losses due to subclinical mastitis infections. Linear Score information is available to members using the Udder Health Management Summary, Report or Package options.

If a producer wants to improve his herd's udder health, reducing the number of new infections is vitally important. Most chronic mastitis cases will never be cured. After a period of time, they will be culled. The key to making progress is cost-effectively culling chronic cows faster than your dairy produces new chronic ones. The best measure for this is the **Herd New Infection Rate**. You can track progress in your own herd on a monthly basis for this important management parameter in Block C of the Udder Health Management Summary option. The Herd Report Card allows you to measure your own herd against others.

New Infect Rate, 1st Test – 1st Lact allows the user to determine, compared to other herds, how theirs matches up in the percent of heifers on their first test with infections (SCC≥200,000). These infections are a subset of the **Herd New Infection Rate**.

Not every cow freshening with an SCC ≥ 200,000 is a fresh cow infection. If she had an SCC≥ 200,000 on her last test day of the previous lactation, she is a chronically infected cow, not a fresh cow infection. AgSource calculates fresh cow infections differently than many because we exclude these chronically infected cows from our **New Infection Rate, 1st Test – 2+ Lact**. The number displayed on your Herd Report Card is an annual average. This management measure is also tracked monthly in the optional Udder Health Management Summary, Block C. It is also a subset of the **Herd New Infection Rate**.

If a cow has an SCC≥200,000 on her last test before drying up and has an SCC less than 200,000 on her first test day after calving, she is a dry period cure. On the Herd Report Card, **Dry Period Cures %** are the total number of these cures in the 12 months before either the January 15 or July 15 calculation divided by the total number of cows freshening in that period with an SCC≥200,000 on their last test day of the previous lactation. Dry Period Cures - % can also be tracked monthly on the Udder Health Management Summary option.

Fresh Cow Transition

One of the bonuses of the introductory Herd Report Card is the inclusion of your annual average Transition Cow Index® or **Annual TCI**. Not only do you receive this valuable measure of your herd's fresh cow performance and health, you can compare yours to other herds.

Members on the Fresh Cow Summary option can track their Transition Cow Index monthly. They can measure the effects of management changes. Perhaps even more important, TCI users will notice immediately when fresh cow performance is dropping and can make changes. They can also note when things are improving and continue the same transition cow management that netted the improvement.

All dairy operators strive to keep their early lactation cows producing. The **% Herd Leaving <60 DIM** measure lets you know how your herd's turnover compares in this critical early lactation period. This figure includes cows that died. You can track this monthly if you are on the Fresh Cow Summary option. The Fresh Cow Summary also allows users to see the breakdown between heifers and other cows leaving at <60 DIM to better determine where the problem is.

The only thing worse than having to ship a cow in early lactation is having her die. **% Herd Dead < 60 DIM** measures this and compares your herd's early lactation death rate to others. The numerator in this calculation is the number of cows in your herd that died in the past year and the denominator is the total number of cows and heifers freshening in the same period.

Block B on the Fresh Cow Summary tracks **% 5-40 DIM, FPR>1.4 1st Lac** and also **% 5-40 DIM, FPR>1.4 2+ Lac**. Research indicates that cows having a first test fat to protein ratio greater than 1.4 may have subclinical ketosis. Being five days in milk is the minimum allowed for DHI testing. Consequently, AgSource measures this fat to protein ratio (FPR) on cows that are five to forty days fresh.
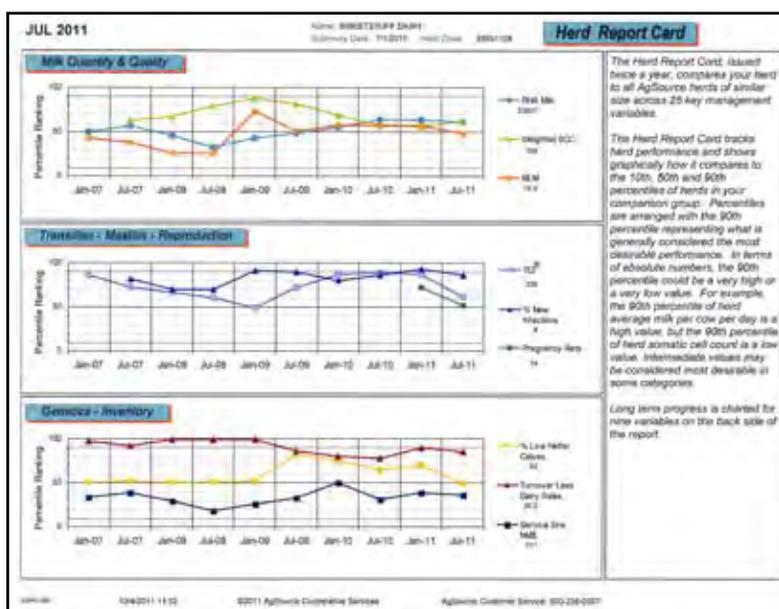
If a cow has a 3% protein test and a 4.2% butterfat test, the fat to protein ratio is exactly 1.4. If the fat test went up or the protein test went down, the ratio would become larger, indicating the cow would be at a greater risk for ketosis, a displaced abomasum and fatty liver. Having a small number of these fat to protein ratios above 1.4 is normal. However, if more than 40% of the cows and heifers freshening in a year are above this level, it is reason for taking action to avoid metabolic disorders.

Back Page

While the front page of the Herd Report Card focuses on a current point in time comparison with peer herds, the back page provides a five-year history. For each six-month measure, your herd is compared to your peer group at that time. This unique historical perspective can be an invaluable management tool. If you have expanded over the past years and the front page of the Herd Report Card identifies udder health issues as an opportunity area, the back page will tell you if this is something that has cropped up during the expansion or is a long-term management issue you had before expanding. This knowledge may affect how you and your advisors attack the problem.

To keep the three graphs legible, they are limited to three measurements in each graph. **The nine measures chosen combine importance with being actionable**. For example, the genetic measures **Avg NM$ - All Cows** and **Avg NM$ Service Sires**. Both of these are important however **Service Sire NM$** is used on the back page since it can be changed very dramatically in six months when the next Herd Report Card is issued. However, it would typically take years to change **Avg NM$ - All Cows** appreciably.

AgSource began calculating **Pregnancy Rates** in 2009 so consequently they are not shown on the graph before that. If you have not entered adequate reproductive information, you will not see a Pregnancy Rate comparison.

Data That Matters!