

Taking Care of Business

Economic Importance of the Dairy Industry – Look at Those Numbers!

The Canadian dairy industry proves that farming really is big business! The industry earns **\$4.84 billion** in farm cash receipts each year and \$11.5 billion in manufacturing sales each year. That means it ranks 4th in Canada for all agricultural sectors, following grains and oilseeds, red meat and horticulture.

The dairy industry creates a lot of jobs. The 14,600 dairy farms create 50,000 on farm jobs. Another 25,200 jobs are created indirectly through goods and services that provide supplies and services farms need.

There are about 300 processing plants that generate another 66,600 jobs both directly and indirectly related to the dairy industry. Processing contributes about **\$10 billion** in sales each year.

A lot of money, and a lot of milk!

The Canadian dairy industry produces 7.6 billion litres of milk per year.

In total, the dairy industry contributes \$26 billion in total economic activity related to dairy production and related industries. This economic impact contributes \$8.3 billion to the Gross Domestic Product. Milk sales make up about \$4.2 billion in sales each year.

The Canadian dairy herd is made up of approximately 1,516,400 head of cattle, of which 1,040,100 are cows.

Example Provincial Impact in Ontario

In Ontario, the dairy industry provides \$9.85 billion in economic impact to the Canadian economy. 54,100 jobs are generated on about 4,460 farms in the province. Approximately 3.5% of producers are leaving the industry each year.

For every \$1.00 invested into dairy activity in Ontario, \$2.66 is generated in economic activity. Talk about bang for your buck!

What does this Mean for Local Farms?

In Canada, the average herd consists of about 68 cows producing 415,300 litres of milk per year. Cows produce, on average, 9,481kg of milk at 3.75% butterfat and 3.21% protein. Farms on average employ three people and provide employment indirectly for 1.4 more people. If you count processing, the average dairy farm provides employment for about eight people!

Source for Statistics: Canadian Dairy Information Centre

Don't Forget the Farmers' Share!

In 2005, milk sold for about \$1.78 per litre. Dairy farmers only received \$0.68, or 38% of the money from every litre of milk sold. In 1981, farmers received 56% of the retail price.

Up to date Statistics

For the most recent statistics on the dairy industry in Canada or your province, contact the Canadian Dairy Information Centre (CIDC) at www.dairyinfo.gc.ca.

Source for The Farmers' Share: The Farmers' Share: Compare the Share Update 2006 – Diane J.F. Martz, Centre for Rural Studies and Enrichment – St. Peter's College, Muenster, Saskatchewan, November 2006

Careers in Agriculture

Dairy farming is a viable and rewarding career. Unlike many other jobs that people work at from 9:00a.m. to 5:00p.m., dairy farming also involves a lifestyle choice. As the business of farming expands and there are more things a farmer can know to help make their operation successful, it is often beneficial for farmers to attend college or university. Post-secondary education is an experience that teaches new skills, provides valuable contacts and networking opportunities, and enables future farmers to see the industry in a scope beyond that of their farm at home.

There are other careers related to the dairy industry in some way that require post-secondary education of some nature. Think about the people who come to visit your farm or that you contact for reasons related to your farm – all of them have a job that is related to the dairy farm in some way because dairy farmers are their customers:

- Agricultural banking business manager
- Artificial insemination technician
- Breed association staff (i.e. fieldperson, registry staff)
- Udder health specialist
- Semen salesman
- Nutritionist
- Crop advisor
- Sire analyst
- Milk recording staff (i.e. in the field, laboratory and office)
- Veterinarian
- Farm managers
- Financial consultants
- Custom heifer raiser
- Relief farm staff
- Company sales representatives
- Milk truck drivers
- And more...

There are other jobs that are directly related to dairy farming as well, such as:

- Agriculture policy analyst
- Dairy journalist
- Dairy researcher
- Agriculture science teacher

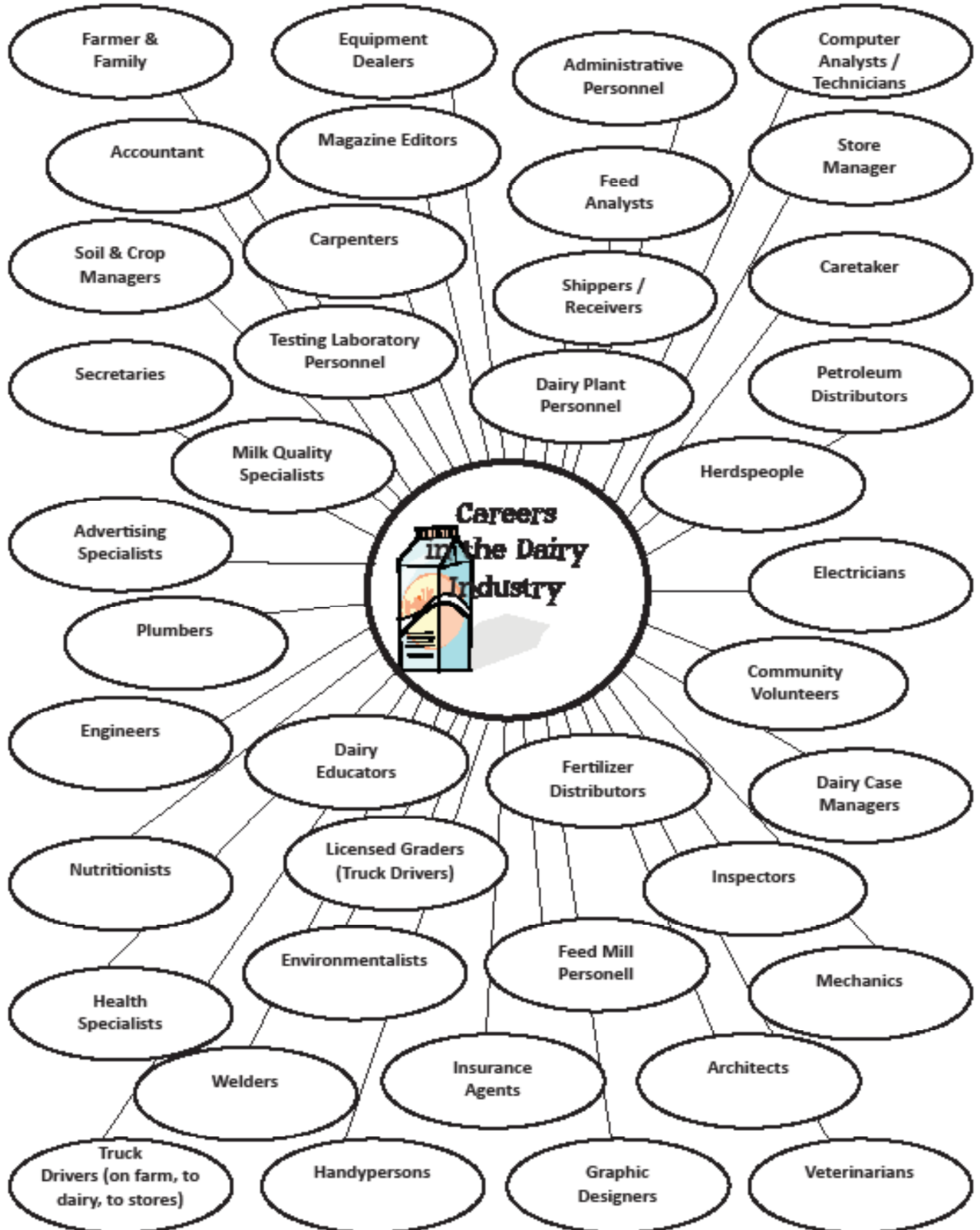
Even more jobs?

There really are an endless number of jobs that can be related to the dairy industry. Here are some examples that help you 'think outside the box' for jobs related to dairy farming.

- A dairy farmer builds a barn: related jobs could include electrician, building contractor, equipment supply companies, plumber, roofer, mason, etc.
- Sutures are made from animal byproducts: related jobs are doctors, nurses, manufacturing companies, etc.
- Brake fluid as a byproduct: manufacturing company, auto workers, mechanics, etc.



These are just some of the many possibilities, can you think of any more?



Source: The Dairy Farmers of Ontario



Record Keeping on the Dairy Farm

Record keeping is an important part of every farmer's daily activities. It helps farmers manage their herds because there are too many things to remember 'off the top of your head'. Records are also physical entities that farmers can look at and compare to help make informed decisions and set goals.

Records are tools that farmers can use to make management decisions about changes they need to make in their operation or what cows they need to cull from the herd.

Farmers need to keep track of many types of information:

Health Records – farmers must record when cows are sick, the cause of the illness and how they were treated. It is also important to keep track of any medicines and vaccinations given to them. Keeping accurate health records is also a key component of the Canadian Quality Milk Program.

Why do you need to remember? For example, if a cow has a vaccination, the record will indicate when she needs to receive a booster shot.

Breeding Records – there are many records related to breeding that must be maintained, including:

1. Calving date
2. Heat dates
3. Breeding dates
4. How many times a cow is bred before she is pregnant
5. Sire information

If it takes too many breedings for a cow to become bred, or if a heat is not seen on her, it could indicate that she has a health problem that needs to be addressed. It could also mean that she is a 'problem breeder' that may need to be culled. When it takes longer to get a cow back in calf, she has to produce milk for a longer period of time. This means that she does not calve on a one year interval and will produce less milk over the course of her lifetime.

Calving Records – whenever a calf is born on the farm it is very important to write down the event. The calf needs to be identified with an ear tag, and her name and number must be recorded. Some breeds and any animals that will cross the border into the United States may need to be tattooed (or

branded) to indicate they are from Canada. If the animal is registered, even more information must be recorded including parentage.

Milk Records – knowing the amount of milk, fat and protein each cow produces helps a farmer manage his or her herd. Knowing somatic cell counts and other health traits is beneficial as well. Milk recording companies help farmers maintain milk records. Technicians (milk testers) come to your farm to measure and test the milk each cow gives. This allows the cows in the herd to be compared to one another and to other cows of the same age and breed. A cow who gives a lot less milk than the others in the herd may need to be culled.

Classification Records – conformation analysis done on each cow by an accredited classifier through Holstein Canada. Holstein Canada coordinates the classification system for all dairy breeds.

Financial Records – farms must keep track of their financial records by budgeting, recording income and expenses and keeping track of assets and liabilities.

Record Keeping Systems

There are different systems of keeping records on a farm based on the amount of time they need to be kept. Records usually move from one system to another.

Temporary – these are records that can be quickly and easily written down but are usually rewritten later in another, more permanent record keeping system. In the barn you could carry a notepad and pen to write down heats or medications/treatments given. A board in the milk house can also show temporary records for anyone doing the chores to see, such as which cows have mastitis or who is in heat.

Semi-permanent – when you have more time you can transfer temporary records to a semi-permanent form of record keeping. For example, heats recorded on a piece of paper can later be marked on a breeding wheel.

Permanent – semi-permanent records should be moved to a file for each animal. Permanent records hold the cow's life history. These records do not have to be physical files! That would take up a lot of paper. Computer programs designed for dairy



herds are good locations to keep permanent records. In case your computer crashes do not forget to make **backup copies** of your files.

Herd records must be kept for **15 years**. That seems like a long time and a lot of data but they prove that your cows are as good as you say they are. They improve the value of your herd and of the breed as a whole.

Herd Production Records – Valuable Management Tools!

Keeping your records in a shoebox like some farmers do, does not help manage your herd effectively. Treatments of lactating cows must be recorded daily to make sure that contaminated milk is not put into the bulk tank. **Milk production numbers and somatic cell counts (SCC)** can be examined over the course of a year to help farmers spot problem months when SCCs rise. This helps farmers know to look for problems and fix them.

There are two companies offering milk recording services in Canada:

1. Canwest DHI (Dairy Herd Improvement) in British Columbia, Alberta, Saskatchewan, Manitoba & Ont.
2. Valacta in Quebec, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland

Most examples in this manual use Canwest DHI data. For additional information, or for specific examples from one of the other milk recording agencies, please contact the applicable organization:

<p style="text-align: center;">CanWest DHI</p> <p>Telephone: 1-800-549-4373 or 519-824-2320 Email: info@canwestdhi.com Website: www.canwestdhi.com</p>	<p style="text-align: center;">Valacta</p> <p>Telephone: 514-398-7880 Email: info@patlq.com Website: www.valacta.com</p>
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CanWest DHI Provides benchmarks that can help farmers know where they can improve their herds:

	MAX	90 th percentile	80 th percentile	70 th percentile	60 th percentile	50 th percentile	40 th percentile	30 th percentile	20 th percentile	10 th percentile
Milk Value – Holstein Average of current 305 day lactation (after deductions and transportation)	>\$7,856	\$6,561	\$6,251	\$6,025	\$5,817	\$5,654	\$5,426	\$5,182	\$4,875	\$4,399
Milk Value – Non- Holstein Average of current 305 day lactation (after deductions and transportation)	>\$7,331	\$5,468	\$5,282	\$5,064	\$4,796	\$4,613	\$4,390	\$4,131	\$3,927	\$3,399
Udder Health (Herd Average Linear Score)	<1.9	2.3	2.5	2.6	2.8	2.9	3.0	3.2	3.4	3.6
Age at First Calving (years-days)	<1-353	2-028	2-046	2-061	2-076	2-092	2-111	2-132	2-162	2-218
Calving Interval (Herd average in months)		<13.1	13.3	13.5	13.8	14.0	14.3	14.5	14.9	15.6
Longevity (Annual % Herd 3+ lactations)	>60.1%	48.6%	44.5%	41.7%	39.3%	37.1%	34.8%	32.5%	29.7%	26.0%
Herd Efficiency		89.7%	88.4%	87.3%	86.3%	85.3%	84.2%	82.6%	80.3%	76.5%
<p>If all the herds/animals were arranged in order from lowest to highest, the 65th percentile means that the value of your herd for that trait is better than 65% of all the other herds.</p> <p>The 99th percentile is that which is better than 99% of all the other herds.</p>										

Source: CanWest DHI 2007 Progress Report for Ontario

By comparing your herd records to these benchmarks, you can determine areas that you need to improve your farm. For example, if your herd was in the 40th percentile for calving interval, that means that 60% of herds have a shorter calving interval than yours does. This is obviously an area that you could improve upon by ensuring balanced rations are fed, checking for heats more often and maintaining more accurate breeding records.

Farmers can analyze their own farms to determine if they are improving year to year. CanWest DHI analyzes your farm's activities as well as thousands of others, making their management benchmarks good points for comparison to improve management and profitability. In addition to increasing production and profitability related to milk, animals on milk recording systems have a higher resale value than those who are not milk recorded. Herds that just want to know information for their own management purposes can maintain unofficial management records that do not have to be supervised by DHI staff and do not have to be done regularly. In order for records to be promoted and publishable, producers must have at least 8 tests per year, of which at least half must be supervised by DHI staff.

When the milk is sampled on the farm on test days, it goes through a meter system that measures the amount of milk each cow gives. The milk tester takes samples of each cow's milk, mixes them with a preservative, and sends them for laboratory testing. The milk tester may also assist with electronic animal registrations and feed and soil analysis.



At the lab, the following tests are performed with reports given on an individual cow and herd basis:

- Measure of the percentage of butterfat in milk
- Measure of the percentage of protein in milk
- Somatic Cell Count (SCC) (*Optional*)
- Milk Urea Nitrogen Test (MUN) (*Optional*)
- Leukosis Test (*Optional*) – tests milk for evidence of individual animals carrying Leukosis
- Johne's Test (*Optional*) – tests milk for evidence of individual being infected with Johne's Disease

From these tests, several reports are created to provide detailed information on herd production levels:

Herd Summary & Monitor Reports include 6 sections within them:

1. **Stage of Lactation** – shows daily milk and 305 day projections broken down by stage of lactation. Daily fat and protein yield are usually included on herd summaries, but herd monitor reports can include other options as well.
2. **Lactation Group Profile** – BCAs for milk, fat and protein, volume projections, and estimated milk values are broken down by lactation group (number of lactations).
3. **Standard Milk Graph** – standard milk is adjusted to a cow's 2nd lactation at 150 days in milk, with component tests of 4.0% fat and 3.3% protein. This standardizes the herd to chart progress without bias of changing days in milk, number of first lactation animals, etc.
4. **Lactation Ratings** – provided for milk, fat and protein and indicates accuracy of records.
5. **Production Averages** – shows the current, rolling, and annual herd BCAs. The current data is based on test day information, the rolling herd average is a rolling 12 month history of the herd production, and is broken down by breed. Annual averages are historical records of the past twelve months of production.
6. **Test Day Summary** – actual test day production numbers and projected BCAs based on production to date in the current lactation.

Herd monitor reports also enable you to compare your herd to the DHI benchmarks and enter farm goals. Management trends for production levels, somatic cell count, MUN test levels, herd age, age at first calving, milk value, days open, and linear score can also be calculated.

Hotsheet Report – Warns farmers of low milk, fat or protein production, abnormal protein:fat ratios or high somatic cell counts

Cow Summary/Monitor Reports – these reports show information similar to that in the herd summaries, but information is given on an individual cow basis. The charts show test day milk, fat and protein production data, cow production to date, projected production and BCAs, days in milk, lactation number, age at calving, and other management information.

Cow Income Monitor Reports – shows the economic impact of each individual cow's performance



Milk Urea Nitrogen Test Reports – MUN test reports indicate the amount of undigested protein found in the milk. Protein is broken down in the rumen and if it is out of balance with dietary energy, the MUN test will be elevated. This report can help you and your nutritionist with ration balancing.

Somatic Cell Counts – somatic cells are white blood cells produced by the cow's immune system. It is used to identify cows likely to have mastitis. Cows should be checked if they have SCCs above 200,000. Linear scores for SCC are good indicators of udder health for the entire herd.

Certificates of Production and Cow Profiles – when animals have completed their records, these reports are generated to show individual cow production levels, BCAs, lactation curves, and the animal's deviation from other animals in the herd.

An Important Part of Production Records – BCAs

BCAs (Breed Class Averages) were first developed in the 1950s to compare the productivity of cows of different breeds and ages. A BCA is a comparison of a cow's production to other animals of her breed and age. BCAs are created for milk, fat and protein. They are compared to standards that indicate the average yield for a cow that is a particular breed, age and month of calving.

Individual animals are compared to herd averages to get their deviations from the herd average. This data can be very useful. For instance, if a herd has low production yields and an individual cow has average production for the breed, but has high positive deviations from herd average milk, fat, and protein, she is probably a good cow that would do well on another farm that would achieve higher production levels.

Classification Records

Classification is when an independent and objective classifier from Holstein Canada visits your farm to assess the conformation of individual animals. This is an optional form of record keeping for farmers but it is one that can have many benefits. The most profitable cows are ones that have functional type traits that permit adequate milk production and allow them to remain in the herd for a long time. Classifying helps farmers determine which cows are the best ones to keep in their herd and which cows will best meet their goals.

Conformation is one basis of high production. Cows that have desirable physical traits eat more roughage, transmit desirable characteristics to their offspring, and improve their production levels as they get older.

Classification can be a useful management tool in several ways:

- breeding and raising the type of animals you want to work with
- providing information to make profitable decisions
- providing information to help improve your herd through corrective breeding

There are other benefits to this service as well. Artificial insemination units often provide financial incentives to help herds classify because it helps their bulls obtain proofs by providing more daughter information. Cows and heifers from classified families have higher Lifetime Profit Indexes (LPIs), and Estimated Breeding Values (EBVs) than unclassified ones. Semen companies also provide computer generated genetic matings for classified herds. In addition, animals that are classified have higher resale values than those that are not classified. Cows that are classified higher tend to produce more milk and be more profitable than cows with lower classifications.

Animals of each dairy breed are evaluated compared to their breed scorecards, which have been developed based on the True Type Model. The classifier looks at the breakdown of four major composite traits: mammary system, feet and legs, rump, and dairy strength. While the same 21 traits are assessed



for each breed, different goals, strengths and weaknesses of the breeds have led their classification committees to create slightly different scorecards. Each trait is assessed based on a linear system, rated 1-9 based on measurements and visual assessments.



Butler True Type Model - Holstein

When classified, cows are placed into one of the following categories:

Excellent (EX) – 90 points and higher

Animals can be reclassified for EX status in subsequent lactations, and will receive multiple Excellent status for scoring EX on different lactations. In Canada, a cow must have had 3 natural calvings to be scored this high. Jerseys that score EX when they are 10 years of age or older are awarded the title Supreme Excellent (SUP-EX) to showcase their longevity.

For example, a cow scored EX 92-3E has been scored 92/100 points and has been granted an Excellent score on three different lactations.

Very Good (VG) – 85-89 points

Good Plus (GP) – 80-84 points

Good (G) – 70-79 points

Fair (F) – below 70 points

Each dairy breed has its own scorecard. While each scorecard is similar, there are slight breed differences. The scorecards for the six major dairy breeds in Canada can be found on the following pages.



Ayrshire Conformation Analysis - Female

REC-10
Brewster, OH
Czech NEW OH

Phone 614-753-3900
Fax 614-753-3990

Name or Barn No.	Client	Classification Date		
Registration No.	Sire Registration No.	Birth Date	Calving Date	Lactation No.

Section	Score	Descriptive Traits	Defective Characteristics
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Rump (10%)		Rump Angle (20%)	High 1 2 3 4 5 6 7 8 9 Low	10 Advanced Ance 2	13 High Tailset 4
		Pin Width (20%)	Narrow 1 2 3 4 5 6 7 8 9 Wide	11 Advanced Tailset 25	14 Wry Tail 25
		Loin Strength (20%)	Weak 1 2 3 4 5 6 7 8 9 Strong	12 Advanced Tailset 4	

Mammary System (40%)		Udder Depth (10%)	Deep 1 2 3 4 5 6 7 8 9 Shallow	20 BK 2	25 Elong Udder 4
		Udder Texture (20%)	Rocky 1 2 3 4 5 6 7 8 9 Soft	21 Excess Milk 25	27 Wided Tail 25
		Median Suspensory (20%)	Weak 1 2 3 4 5 6 7 8 9 Strong	22 Short Flap 4	28 Front Teats Back 25
		Fore Attachment (20%)	Weak 1 2 3 4 5 6 7 8 9 Strong	23 Short Flap 4	29 Rear Teats Back 25
		Front Teat Placement (20%)	Wide 1 2 3 4 5 6 7 8 9 Close	24 Lacks Udder Shape 4	
		Rear Attachment Height (20%)	Low 1 2 3 4 5 6 7 8 9 High	25 Unbalanced Udder 25	
		Rear Attachment Width (20%)	Narrow 1 2 3 4 5 6 7 8 9 Wide		
		Rear Teat Placement (20%)	Wide 1 2 3 4 5 6 7 8 9 Close		
		Teat Length (20%)	Short 1 2 3 4 5 6 7 8 9 Long		

Feet & Legs (25%)		Foot Angle (20%)	Low 1 2 3 4 5 6 7 8 9 Deep	30 Abnormal Claw 25	34 Curved 4
		Heel Depth (20%)	Shallow 1 2 3 4 5 6 7 8 9 Deep	31 Milk Production 25	35 Thrush Back/Leg 25
		Bone Quality (20%)	Weak 1 2 3 4 5 6 7 8 9 Fat	32 Soggy Hooves 4	36 Thin Out Feet 4
		Rear Legs-Side View (20%)	Slight 1 2 3 4 5 6 7 8 9 Curved	33 Lacks Bone 25	
		Rear Legs-Rear View (20%)	Twisted In 1 2 3 4 5 6 7 8 9 Straight		
		Locomotion (20%)	Non-usable 1 2 3 4 5 6 7 8 9 Usable		

Dairy Strength (25%)		Stature (20%)	Short 1 2 3 4 5 6 7 8 9 Tall	40 Milky Face 4	44 Weak Back 25
		Height at Front End (20%)	Low 1 2 3 4 5 6 7 8 9 High	41 Malformed Jaw 25	45 Flat With Hump 25
		Chest Width (20%)	Narrow 1 2 3 4 5 6 7 8 9 Wide	42 Weak Face/Fit 4	46 Lacks Balance 4
		Body Depth (20%)	Shallow 1 2 3 4 5 6 7 8 9 Deep	43 Milk Drops 4	
		Angularity (20%)	Non-angular 1 2 3 4 5 6 7 8 9 Angular		
		Body Condition Score (20%)	Low 1 2 3 4 5 6 7 8 9 High		
		Bone Quality (20%) Udder Texture (20%) Loin Strength (20%)			

Class	Score	Comments:
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Brown Swiss Conformation Analysis - Female

FD-10
Revised 01/11
Copyright 2011

Phone: 608-785-6900
Fax: 608-785-3390

Name or Barn No.	Client	Classification Date		
Registration No.	Sire Registration No.	Birth Date	Calving Date	Lactation No.

Section	Score	Descriptive Traits	Defective Characteristics
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Rump (10%)		Rump Angle (10%) High 1 2 3 4 5 6 7 8 9 Low	10 Advanced Anus <input type="checkbox"/> 13 High Tailhead <input type="checkbox"/>
		Pin Width (20%) Narrow 1 2 3 4 5 6 7 8 9 Wide	11 Advanced Tailhead <input type="checkbox"/> 14 Wry Tail <input type="checkbox"/>
		Loin Strength (20%) Weak 1 2 3 4 5 6 7 8 9 Strong	12 Recurved Tailhead <input type="checkbox"/>

Mammary System (40%)		Udder Depth (10%) Deep 1 2 3 4 5 6 7 8 9 Shallow	20 Wet <input type="checkbox"/> 25 Ball Center <input type="checkbox"/>
		Udder Texture (10%) Rocky 1 2 3 4 5 6 7 8 9 Soft	21 Excess Milk <input type="checkbox"/> 27 Wicked Teat <input type="checkbox"/>
		Median Suspensory (10%) Weak 1 2 3 4 5 6 7 8 9 Strong	22 Short Flap <input type="checkbox"/> 28 Front Teat Back <input type="checkbox"/>
		Fore Attachment (20%) Weak 1 2 3 4 5 6 7 8 9 Strong	23 Short Flap <input type="checkbox"/> 29 Rear Teat Back <input type="checkbox"/>
		Front Teat Placement (20%) Wide 1 2 3 4 5 6 7 8 9 Close	24 Lacks Udder Shape <input type="checkbox"/>
		Rear Attachment Height (10%) Low 1 2 3 4 5 6 7 8 9 High	25 Unbalanced Center <input type="checkbox"/>
		Rear Attachment Width (10%) Narrow 1 2 3 4 5 6 7 8 9 Wide	
		Rear Teat Placement (20%) Wide 1 2 3 4 5 6 7 8 9 Close	
		Teat Length (20%) Short 1 2 3 4 5 6 7 8 9 Long	

Feet & Legs (25%)		Foot Angle (20%) Low 1 2 3 4 5 6 7 8 9 Steep	30 Altered Claw <input type="checkbox"/> 34 Curved <input type="checkbox"/>
		Heel Depth (20%) Shallow 1 2 3 4 5 6 7 8 9 Deep	31 Weak Pastern <input type="checkbox"/> 35 Thin Back Leg <input type="checkbox"/>
		Bone Quality (10%) Weak 1 2 3 4 5 6 7 8 9 Fat	32 Splay Heels <input type="checkbox"/> 36 Thin Out Front <input type="checkbox"/>
		Rear Legs-Side View (10%) Slight 1 2 3 4 5 6 7 8 9 Curved	33 Lacks Bone <input type="checkbox"/>
		Rear Legs-Rear View (20%) Vertical to 1 2 3 4 5 6 7 8 9 Slight	
		Location (20%) Not visible 1 2 3 4 5 6 7 8 9 Visible	

Dairy Strength (25%)		Stature (10%) Short 1 2 3 4 5 6 7 8 9 Tall	40 Milky Face <input type="checkbox"/> 44 Weak Back <input type="checkbox"/>
		Height at Front End (20%) Low 1 2 3 4 5 6 7 8 9 High	41 Malformed Jaw <input type="checkbox"/> 45 Not Well Spaced <input type="checkbox"/>
		Chest Width (20%) Narrow 1 2 3 4 5 6 7 8 9 Wide	42 Weak Face Fill <input type="checkbox"/> 46 Lacks Balance <input type="checkbox"/>
		Body Depth (10%) Shallow 1 2 3 4 5 6 7 8 9 Deep	43 Weak Croup <input type="checkbox"/>
		Angularity (20%) Not angular 1 2 3 4 5 6 7 8 9 Angular	
		Body Condition Score (20%) Low 1 2 3 4 5 6 7 8 9 High	
		Bone Quality (20%) Udder Texture (10%) Loin Strength (20%)	

Class	Score	Comments:
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Canadienne Conformation Analysis - Female

Revised
Burlington, OH
Czech-Meyer 1994

Phone 614-393-8907
Fax 614-393-0390

Name or Barn No.	Client	Classification Date		
Registration No.	Sire Registration No.	Birth Date	Calving Date	Lactation No.

Section	Score	Descriptive Traits	Defective Characteristics
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Rump (10%)		Rump Angle (100) high 1 2 3 4 5 6 7 8 9 low	10 Advanced Area <input type="checkbox"/> 13 High Tailhead <input type="checkbox"/>
		Pin Width (100) narrow 1 2 3 4 5 6 7 8 9 wide	11 Advanced Tailhead <input type="checkbox"/> 14 Wry Tail <input type="checkbox"/>
		Loin Strength (100) weak 1 2 3 4 5 6 7 8 9 strong	12 Rounded Tailhead <input type="checkbox"/>

Mammary System (40%)		Udder Depth (100) deep 1 2 3 4 5 6 7 8 9 shallow	20 Wet <input type="checkbox"/> 25 Blat Quarter <input type="checkbox"/>
		Udder Texture (100) leaky 1 2 3 4 5 6 7 8 9 soft	21 Soreness Wet <input type="checkbox"/> 27 Withered Tail <input type="checkbox"/>
		Median Suspensory (100) weak 1 2 3 4 5 6 7 8 9 strong	22 Short Flap <input type="checkbox"/> 28 Front Teats Back <input type="checkbox"/>
		Fore Attachment (100) weak 1 2 3 4 5 6 7 8 9 strong	23 Short Flap <input type="checkbox"/> 29 Rear Teats Back <input type="checkbox"/>
		Front Teat Placement (100) wide 1 2 3 4 5 6 7 8 9 close	24 Lacks Udder Shape <input type="checkbox"/>
		Rear Attachment Height (100) low 1 2 3 4 5 6 7 8 9 high	25 Unbalanced Quarter <input type="checkbox"/>
		Rear Attachment Width (100) narrow 1 2 3 4 5 6 7 8 9 wide	
		Rear Teat Placement (100) wide 1 2 3 4 5 6 7 8 9 close	
		Teat Length (100) short 1 2 3 4 5 6 7 8 9 long	

Feet & Legs (25%)		Foot Angle (100) low 1 2 3 4 5 6 7 8 9 steep	30 Abnormal Claw <input type="checkbox"/> 34 Curved <input type="checkbox"/>
		Heel Depth (100) shallow 1 2 3 4 5 6 7 8 9 deep	31 Weak Pasterns <input type="checkbox"/> 35 Thrush Back/Legs <input type="checkbox"/>
		Bone Quality (100) weak 1 2 3 4 5 6 7 8 9 fat	32 Soggy Hooves <input type="checkbox"/> 36 Thin Out Feet <input type="checkbox"/>
		Rear Legs-Side View (100) slight 1 2 3 4 5 6 7 8 9 correct	33 Lacks Bone <input type="checkbox"/>
		Rear Legs-Rear View (100) lacked by 1 2 3 4 5 6 7 8 9 straight	
		Locomotion (100) non-utile 1 2 3 4 5 6 7 8 9 useful	

Dairy Strength (25%)		Stature (100) short 1 2 3 4 5 6 7 8 9 tall	40illy Face <input type="checkbox"/> 44 Weak Back <input type="checkbox"/>
		Height at Front End (100) low 1 2 3 4 5 6 7 8 9 high	41 Malformed Jaws <input type="checkbox"/> 45 Flat With Spring <input type="checkbox"/>
		Chest Width (100) narrow 1 2 3 4 5 6 7 8 9 wide	42 Weak Fore Flap <input type="checkbox"/> 46 Lacks Balance <input type="checkbox"/>
		Body Depth (100) shallow 1 2 3 4 5 6 7 8 9 deep	43 Weak Crops <input type="checkbox"/>
		Angularity (100) non-angular 1 2 3 4 5 6 7 8 9 angular	
		Body Condition Score (100) low 1 2 3 4 5 6 7 8 9 high	
		Bone Quality (100) Udder Texture (100) Loin Strength (100)	

Class	Score	Comments:
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Guernsey Conformation Analysis - Female

Revised
December, 2011
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Phone: 608-785-8800
Fax: 608-785-8780

Name or Barn No.	Client	Classification Date		
Registration No.	Sire Registration No.	Birth Date	Calving Date	Lactation No.

Section	Score	Descriptive Traits	Defective Characteristics
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Rump (10%)		Rump Angle (10%) high 1 2 3 4 5 6 7 8 9 low	10 Advanced Anus <input type="checkbox"/> 13 High Tailhead <input type="checkbox"/>
		Pin Width (20%) narrow 1 2 3 4 5 6 7 8 9 wide	11 Advanced Tailhead <input type="checkbox"/> 14 Wry Tail <input type="checkbox"/>
		Loin Strength (20%) weak 1 2 3 4 5 6 7 8 9 strong	12 Recurved Tailhead <input type="checkbox"/>

Mammary System (40%)		Udder Depth (10%) deep 1 2 3 4 5 6 7 8 9 shallow	20 Wet <input type="checkbox"/> 25 Ball Center <input type="checkbox"/>
		Udder Texture (10%) loose 1 2 3 4 5 6 7 8 9 tight	21 Misplaced Udder <input type="checkbox"/> 27 Withered Teat <input type="checkbox"/>
		Median Suspensory (10%) weak 1 2 3 4 5 6 7 8 9 strong	22 Short Flap <input type="checkbox"/> 28 Front Teat Back <input type="checkbox"/>
		Fore Attachment (20%) weak 1 2 3 4 5 6 7 8 9 strong	23 Short Flap <input type="checkbox"/> 29 Rear Teat Back <input type="checkbox"/>
		Front Teat Placement (20%) wide 1 2 3 4 5 6 7 8 9 close	24 Lacks Udder Shape <input type="checkbox"/>
		Rear Attachment Height (20%) low 1 2 3 4 5 6 7 8 9 high	25 Unbalanced Center <input type="checkbox"/>
		Rear Attachment Width (20%) narrow 1 2 3 4 5 6 7 8 9 wide	
		Rear Teat Placement (20%) wide 1 2 3 4 5 6 7 8 9 close	
		Teat Length (20%) short 1 2 3 4 5 6 7 8 9 long	

Feet & Legs (25%)		Foot Angle (20%) low 1 2 3 4 5 6 7 8 9 steep	30 Altered Claw <input type="checkbox"/> 34 Curved <input type="checkbox"/>
		Heel Depth (20%) shallow 1 2 3 4 5 6 7 8 9 deep	31 Weak Pastern <input type="checkbox"/> 35 Thin Back Leg <input type="checkbox"/>
		Bone Quality (10%) weak 1 2 3 4 5 6 7 8 9 fat	32 Splay Heels <input type="checkbox"/> 36 Thin Out Front <input type="checkbox"/>
		Rear Legs-Side View (10%) slight 1 2 3 4 5 6 7 8 9 correct	33 Lacks Bone <input type="checkbox"/>
		Rear Legs-Rear View (20%) lacked in 1 2 3 4 5 6 7 8 9 slight	
		Locomotion (20%) non-stable 1 2 3 4 5 6 7 8 9 stable	

Dairy Strength (25%)		Stature (10%) short 1 2 3 4 5 6 7 8 9 tall	40 Milky Face <input type="checkbox"/> 44 Weak Back <input type="checkbox"/>
		Height at Front End (20%) low 1 2 3 4 5 6 7 8 9 high	41 Malformed Jaw <input type="checkbox"/> 45 Flat With Spine <input type="checkbox"/>
		Chest Width (20%) narrow 1 2 3 4 5 6 7 8 9 wide	42 Weak Fore Rib <input type="checkbox"/> 46 Lacks Balance <input type="checkbox"/>
		Body Depth (20%) shallow 1 2 3 4 5 6 7 8 9 deep	43 Weak Croup <input type="checkbox"/>
		Angularity (20%) non-regular 1 2 3 4 5 6 7 8 9 regular	
		Body Condition Score (20%) low 1 2 3 4 5 6 7 8 9 high	
		Bone Quality (20%) Udder Texture (20%) Loin Strength (20%)	

Class	Score	Comments:
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Holstein Canada Conformation Analysis - Female

Revised
November, 2011
Council 4471/014

Phone: 519-329-9997
Fax: 519-329-9999

Name or Barn No.	Client	Classification Date		
Registration No.	Sire Registration No.	Birth Date	Calving Date	Lactation No.

Section	Score	Descriptive Traits	Defective Characteristics
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Rump (10%)		Rump Angle (100) high 1 2 3 4 5 6 7 8 9 low	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%; border: 1px solid black; padding: 2px;">10 Advanced Feet _{gg}</td> <td style="width: 25%; border: 1px solid black; padding: 2px;">13 High Tailhead _{gg}</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">11 Advanced Tailhead _{gg}</td> <td style="border: 1px solid black; padding: 2px;">14 Wry Tail _g</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">12 Staggered Tailhead _g</td> <td></td> </tr> </table>	10 Advanced Feet _{gg}	13 High Tailhead _{gg}	11 Advanced Tailhead _{gg}	14 Wry Tail _g	12 Staggered Tailhead _g	
	10 Advanced Feet _{gg}	13 High Tailhead _{gg}							
	11 Advanced Tailhead _{gg}	14 Wry Tail _g							
12 Staggered Tailhead _g									
	Pin Width (200) normal 1 2 3 4 5 6 7 8 9 wide								
	Loin Strength (200) weak 1 2 3 4 5 6 7 8 9 strong								

Mammary System (40%)		Udder Depth (100) deep 1 2 3 4 5 6 7 8 9 shallow	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%; border: 1px solid black; padding: 2px;">20 Wet _g</td> <td style="width: 25%; border: 1px solid black; padding: 2px;">25 Blind Quarter _g</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">21 Misuse: Wet _{gg}</td> <td style="border: 1px solid black; padding: 2px;">27 Winded Tail _g</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">22 Short Flap _g</td> <td style="border: 1px solid black; padding: 2px;">28 Front Teats Back _g</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">23 Short Flap _g</td> <td style="border: 1px solid black; padding: 2px;">29 Rear Teats Back _g</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">24 Loose Udder/Slopes _g</td> <td></td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">25 Unbalanced Quarter _g</td> <td></td> </tr> </table>	20 Wet _g	25 Blind Quarter _g	21 Misuse: Wet _{gg}	27 Winded Tail _g	22 Short Flap _g	28 Front Teats Back _g	23 Short Flap _g	29 Rear Teats Back _g	24 Loose Udder/Slopes _g		25 Unbalanced Quarter _g	
	20 Wet _g	25 Blind Quarter _g													
	21 Misuse: Wet _{gg}	27 Winded Tail _g													
	22 Short Flap _g	28 Front Teats Back _g													
	23 Short Flap _g	29 Rear Teats Back _g													
	24 Loose Udder/Slopes _g														
	25 Unbalanced Quarter _g														
		Udder Texture (100) loose 1 2 3 4 5 6 7 8 9 tight													
		Median Suspensory (100) weak 1 2 3 4 5 6 7 8 9 strong													
	Fore Attachment (100) weak 1 2 3 4 5 6 7 8 9 strong														
	Front Teat Placement (100) wide 1 2 3 4 5 6 7 8 9 close														
	Rear Attachment Height (100) low 1 2 3 4 5 6 7 8 9 high														
	Rear Attachment Width (100) normal 1 2 3 4 5 6 7 8 9 wide														
	Rear Teat Placement (100) wide 1 2 3 4 5 6 7 8 9 close														
	Teat Length (100) short 1 2 3 4 5 6 7 8 9 long														

Feet & Legs (25%)		Foot Angle (200) low 1 2 3 4 5 6 7 8 9 steep	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%; border: 1px solid black; padding: 2px;">30 Advanced Claw _{gg}</td> <td style="width: 25%; border: 1px solid black; padding: 2px;">34 Curved _g</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">31 Milk Pedicles _{gg}</td> <td style="border: 1px solid black; padding: 2px;">35 Thrust Back/Lam _{gg}</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">32 Splay Heels _g</td> <td style="border: 1px solid black; padding: 2px;">36 Ties Out Feet _{gg}</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">33 Loose Heels _{gg}</td> <td></td> </tr> </table>	30 Advanced Claw _{gg}	34 Curved _g	31 Milk Pedicles _{gg}	35 Thrust Back/Lam _{gg}	32 Splay Heels _g	36 Ties Out Feet _{gg}	33 Loose Heels _{gg}	
	30 Advanced Claw _{gg}	34 Curved _g									
	31 Milk Pedicles _{gg}	35 Thrust Back/Lam _{gg}									
	32 Splay Heels _g	36 Ties Out Feet _{gg}									
	33 Loose Heels _{gg}										
		Heel Depth (200) shallow 1 2 3 4 5 6 7 8 9 deep									
	Bone Quality (100) misuse 1 2 3 4 5 6 7 8 9 fit										
	Rear Legs-Side View (100) slight 1 2 3 4 5 6 7 8 9 correct										
	Rear Legs-Rear View (100) vertical to 1 2 3 4 5 6 7 8 9 slight										
	Locomotion (100000) non-uniform 1 2 3 4 5 6 7 8 9 regular										

Dairy Strength (25%)		Stature (100) short 1 2 3 4 5 6 7 8 9 tall	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%; border: 1px solid black; padding: 2px;">40illy Face _g</td> <td style="width: 25%; border: 1px solid black; padding: 2px;">44 Weak Back _{gg}</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">41 Malformed Jaw _g</td> <td style="border: 1px solid black; padding: 2px;">45 Red Wtd Spring _{gg}</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">42 Shoulder Face: Flat _{gg}</td> <td style="border: 1px solid black; padding: 2px;">46 Loose Ears _g</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">43 Milk Clogs _{gg}</td> <td></td> </tr> </table>	40illy Face _g	44 Weak Back _{gg}	41 Malformed Jaw _g	45 Red Wtd Spring _{gg}	42 Shoulder Face: Flat _{gg}	46 Loose Ears _g	43 Milk Clogs _{gg}	
	40illy Face _g	44 Weak Back _{gg}									
	41 Malformed Jaw _g	45 Red Wtd Spring _{gg}									
	42 Shoulder Face: Flat _{gg}	46 Loose Ears _g									
	43 Milk Clogs _{gg}										
		Height at Front End (200) low 1 2 3 4 5 6 7 8 9 high									
		Chest Width (200) normal 1 2 3 4 5 6 7 8 9 wide									
	Body Depth (100) shallow 1 2 3 4 5 6 7 8 9 deep										
	Angularity (200) non-angular 1 2 3 4 5 6 7 8 9 angular										
	Body Condition Score (100000) low 1 2 3 4 5 6 7 8 9 high										
	Bone Quality (100) Udder Texture (200) Loin Strength (100)										

Class	Score	Comments:
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Milking Shorthorn Conformation Analysis - Female

800-777-8787
Brentford, OH
Czech Hill Farm

Phone 614-753-8847
Fax 614-753-0799

Name or Barn No.	Client	Classification Date		
Registration No.	Sire Registration No.	Birth Date	Calving Date	Lactation No.

Section	Score	Descriptive Traits	Defective Characteristics
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Rump (10%)		Rump Angle (10%)	High 1 2 3 4 5 6 7 8 9 Low	10 Advanced Area ^{gg}	13 High Tailhead ^{gg}
		Pin Width (10%)	Normal 1 2 3 4 5 6 7 8 9 Wide	11 Advanced Tailhead ^{gg}	14 Wry Tail ^g
		Loin Strength (10%)	Weak 1 2 3 4 5 6 7 8 9 Strong	12 Advanced Tailhead ^g	

Mammary System (40%)		Udder Depth (10%)	Deep 1 2 3 4 5 6 7 8 9 Shallow	20 Wet ^g	26 Blind Quarter ^g
		Udder Texture (10%)	Rocky 1 2 3 4 5 6 7 8 9 Soft	21 Misplaced Milk ^{gg}	27 Winded Tail ^g
		Median Suspensory (10%)	Weak 1 2 3 4 5 6 7 8 9 Strong	22 Short Flare ^g	28 Front Teats Back ^g
		Fore Attachment (10%)	Weak 1 2 3 4 5 6 7 8 9 Strong	23 Short Flare ^g	29 Rear Teats Back ^g
		Front Teat Placement (10%)	Wide 1 2 3 4 5 6 7 8 9 Close	24 Loose Udder/Silage ^g	
		Rear Attachment Height (10%)	Low 1 2 3 4 5 6 7 8 9 High	25 Unbalanced Cluster ^g	
		Rear Attachment Width (10%)	Normal 1 2 3 4 5 6 7 8 9 Wide		
		Rear Teat Placement (10%)	Wide 1 2 3 4 5 6 7 8 9 Close		
		Teat Length (10%)	Short 1 2 3 4 5 6 7 8 9 Long		

Feet & Legs (25%)		Foot Angle (10%)	Low 1 2 3 4 5 6 7 8 9 Steep	30 Abnormal Claw ^{gg}	34 Curved ^g
		Heel Depth (10%)	Shallow 1 2 3 4 5 6 7 8 9 Deep	31 Weak Pasterns ^{gg}	35 Thrush Back ^{gg}
		Bone Quality (10%)	Normal 1 2 3 4 5 6 7 8 9 Soft	32 Buggy Hooves ^g	36 Thin Out Feet ^{gg}
		Rear Legs-Side View (10%)	Slight 1 2 3 4 5 6 7 8 9 Curved	33 Loose Bone ^{gg}	
		Rear Legs-Rear View (10%)	Locked In 1 2 3 4 5 6 7 8 9 Slight		
		Locomotion (10%)	Not-rotary 1 2 3 4 5 6 7 8 9 Rotary		

Dairy Strength (25%)		Stature (10%)	Short 1 2 3 4 5 6 7 8 9 Tall	40 Milky Face ^g	44 Weak Back ^{gg}
		Height at Front End (10%)	Low 1 2 3 4 5 6 7 8 9 High	41 Malformed Jaws ^g	45 Flat With Spring ^{gg}
		Chest Width (10%)	Normal 1 2 3 4 5 6 7 8 9 Wide	42 Weakler Face/Fit ^{gg}	46 Loose Balance ^g
		Body Depth (10%)	Shallow 1 2 3 4 5 6 7 8 9 Deep	43 Milk Crops ^{gg}	
		Angularity (10%)	Not angular 1 2 3 4 5 6 7 8 9 Angular		
		Body Condition Score (10%)	Low 1 2 3 4 5 6 7 8 9 High		
		Bone Quality (10%) Udder Texture (10%) Loin Strength (10%)			

Class	Score	Comments:
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Managing the Money and People on Your Farm

Operating a farm is like operating any other business. It involves managing money, staff, keeping track of daily operations as well as looking ahead to the future.

Financial Management

Budget Your Money

A budget is a plan. Farmers create budgets to plan how much they will have to spend on feed costs, veterinary bills, housing, equipment, etc. Comparing expenditures to budgeted amounts allows farmers to keep track of their spending throughout the year.

Digging Deeper - Financial Statements

Financial statements include a balance sheet and an income statement, among other things. A balance sheet shows the 2 "Os" – what is owed and what is owned – at a particular point in time. Money and other items owned are listed as assets, while debts are listed as liabilities.

Balance sheets are useful for several reasons, such as:

- determining your net worth
- figuring out if you need a loan or what assets you have to sell to repay a loan
- analyzing trends
- providing proof that you are able to repay a loan



There are several important components of a balance sheet, as indicated on this sample balance sheet for farms of different sizes, as shown below:

SUMMARY OF ONTARIO DAIRY FARMS

FARM BALANCE SHEET

(Assets at Estimated Value)

FARM ASSETS	Low 50 Farms	Avg 149 Farms	High 50 Farms
Current Assets:			
Cash (On Hand And In Bank)	11,844	1,516	-13,413
Accounts Receivable	22,489	29,161	43,943
Market & Feeder Livestock	3,628	3,654	1,549
Home-Grown Crops	46,195	61,007	92,187
Purchased Feed & Supplies	3,022	4,344	6,348
Other Current Assets	0	0	0
..Total Current Assets	\$87,178	\$99,682	\$130,614
Long Term Assets			
Breeding Livestock	109,667	118,658	152,463
Market Quota	1,222,697	1,605,752	2,277,459
Field Machinery	282,364	260,705	286,048
Barn Equipment	65,726	84,710	129,160
Farm Buildings	187,045	224,419	274,817
Land	385,749	497,755	802,309
Other Long Term Assets	12,876	32,537	49,044
..Total Long Term Assets	\$2,266,124	\$2,824,536	\$3,971,300
TOTAL FARM ASSETS	\$2,353,302	\$2,924,218	\$4,101,914
LIABILITIES			
Accounts Payable	19,705	18,526	26,653
Interest Arrears	364	156	100
Operating Credit	22,236	24,611	26,131
Current Portion Of Term Debt	35,200	41,771	39,247
..Total Current Liabilities	\$77,505	\$85,064	\$92,131
Term Debt	370,203	504,285	679,608
TOTAL FARM LIABILITIES	\$447,708	\$589,349	\$771,739
EQUITY IN FARM BUSINESS	\$1,905,594	\$2,334,869	\$3,330,175

Source: Ontario Farm Management Analysis Project – Ontario Dairy Summary 2005

The Farm Income Statement: Income vs Expenses

Part of the reason for operating any business is to make money. Money made that is not used to offset an expense is referred to as *net income*. *Gross income* is the total amount of revenue earned by the farm.

$$\text{Gross Income} - \text{Expenses} = \text{Net Income}$$

Farm Income Statements can be used to develop monthly budgets. They focus on everything that earns money (revenue) and that money is spent on (expenses). Expenses do not include purchases that will last longer than one year such as tractors, buildings, land, tile drainage, etc. Those items are assets that you will have in the future.

The net income is what the farmer uses to pay him or herself. In order to have money to live your daily life, save for the future, or have some extra money left over, the gross income must exceed expenses. It is recommended on farms that your expenses should not exceed 75% of your gross income. Thus, for every \$1.00 the farm earns, you should have \$0.25 left over after expenses. When expenses are lower, farmers have more money available to them. When expenses exceed the gross revenue, the farm is not making enough money to pay the bills.

In order to supplement income many farm families have a person with another job outside of the farm.

Sample farm income statements for farms of different sizes in Ontario can be found on the next page:



SUMMARY OF ONTARIO DAIRY FARMS

FARM INCOME STATEMENT

	Avg 149 Farms	Low 50 Farms	High 50 Farms
REVENUE			
Product sales-milk	385,159	292,564	553,688
Market & Feeder Livestock	3,027	3,146	2,319
Breeding stock	5,160	3,389	6,854
Cull stock	6,412	4,099	10,387
Other livestock	3,719	882	9,366
Crop sales	18,090	14,535	29,519
Custom work	2,381	1,147	4,783
Other Farm Revenue	7,765	4,820	13,197
TOTAL CASH REVENUE	\$431,713	\$324,582	\$630,113
Change in Accounts Receivable	1,909	94	3,067
Changes in Inventory	5,078	-7,810	18,453
TOTAL FARM REVENUE	\$316,966	\$438,700	\$651,633
EXPENSES			
VARIABLE EXPENSES			
Livestock -Purchased Livestock	3,686	4,980	5,397
Feed-Conc., Grain & Forage	38,988	53,360	78,625
Animal Health & Breeding	11,500	14,844	20,701
Other (Livestock Stabztn, Barn Supplies)	10,470	12,822	18,909
Crop Inputs -Seed & Plants	7,867	7,675	9,869
Fertilizer & Lime	7,524	8,814	11,194
Pesticides & Other Chemicals	3,216	3,767	5,119
Containers And Twine	1,862	1,815	2,013
Other (Stabztn, Insurance Etc.)	757	1,249	2,172
Marketing & Transportation Costs	18,540	25,156	37,237
Custom Work, Equipment Rent	7,268	10,726	17,086
Hired Labour	36,062	36,341	50,018
Machinery & Equipment-Fuel & Oil	14,437	14,637	18,591
Machinery & Equipment-Repairs	15,807	17,862	23,131
Motor Vehicle Expenses	2,800	3,432	3,694
Building, Fence Repairs	7,754	8,850	12,549
Heating Fuel	676	1,368	2,008
Electricity & Telephone	11,174	12,053	14,508
Accounting, Office Expenses	3,705	4,706	7,297
Interest (Operating)	2,303	2,751	3,137
Other Cash Operating Expenses	4,828	5,788	8,322
Change in Payables	2,979	1,461	1,078
TOTAL VARIABLE EXPENSES	\$214,203	\$254,457	\$352,655
CONTRIBUTION MARGIN	\$102,763	\$184,243	\$298,978
FIXED EXPENSES			
Property Taxes, Fire & Liab. Ins	10,599	12,015	15,868
Lease & Rent Payments	5,991	4,576	4,766
Interest (Term)	26,742	33,458	45,255
Change in Interest Arrears	364	71	-152
Depreciation	44,530	45,897	55,262
TOTAL FIXED EXPENSES	88,226	96,017	120,999
TOTAL EXPENSES	302,429	350,474	473,654
-Less Personal Share of Expenses	-5,100	-19,107	-39,525
TOTAL FARM EXPENSES	\$297,329	\$331,367	\$434,129
NET FARM INCOME	\$19,637	\$107,333	\$217,504

Source: Ontario Farm Management Analysis Project – Ontario Dairy Summary 2005

Debt & Loans

When money is borrowed from a bank, a person, or another lending institution, the arrangement for money borrowed is called a loan, which is a type of debt. Loans can be short term or long term. Most farms have both types of loans. A mortgage on a farm is spread over many years and is referred to as a long term loan. In contrast, a loan that a farmer gets to help pay to plant his or her crop is a short term loan because it will be repaid in a few months when the crop is sold.



On a dairy farm, experts recommend that total debt should not be more than \$1.00 per litre of milk shipped. Farmers shipping 500,000 litres of milk per year should not have a debt exceeding \$500,000.

When seeking a loan, you must have all of your financial paperwork in order. You will need current and past financial statements, a business plan, proof of loan security and a good credit history. Remember that discussions with your banker are subject to negotiation. Pricing interest rates and terms with other banks and credit unions may help as well. Their first offer isn't necessarily their best offer!

Savings

The most financially successful people save at least 10% of their income. For every dollar earned, \$0.10 would go in the bank. The rest would then be used to pay bills and other expenses.

Year End Procedures

After the farm's fiscal year has ended, you should evaluate if you met your goals. This will help you plan for the next year. Most farmers have their finances reviewed by an accountant at the end of the year.

Insurance

All farms should pay into insurance. What if a drought damaged all of your crops? What if you lost your barn in a fire?

Without insurance it would cost so much to rebuild a facility or recover from a loss that it would be hard for most people to continue farming. Purchasing insurance provides peace of mind and should ensure that if something happens to your farm or animals you will receive compensation to fix it. You need to figure out how much and what types of insurance you need. This is one area where it is important to ask experts, such as insurance brokers, for advice.

Liability insurance for farm employees is another type of insurance that can prove very useful, if a farm worker is injured on the job.

Management Decisions on the Farm

Your financial statements can be used like tools to help you make management decisions on your farm. There are two ways to make money in the dairy industry:

1. Increase revenues
2. Cut expenses

Often, increasing revenues is done by expanding your barn (or building a new one) and purchasing more cows and quota. There are many factors to consider in determining if this will be a profitable decision.

If you were thinking of expanding your milking herd from 80 cows to 180 cows there are some things you would need to know. Some of the questions you should research are:

- How much quota will you need to buy and at what price?
- What is your projected income?
- How much will more cows and building material cost?
- Do you need to build a new facility or can you adapt an existing barn?
- Do you require more feed storage facilities?
- Do you require more machinery and equipment?
- Do you have enough land to support more cows?
- Do you have enough time to manage the increased workload, and if not, are good employees available?
- What will the cash flow be after paying taxes?
- How risky is your investment? Are you willing to accept the risk of the project failing and losing a lot of money?



When in Doubt...Ask the Experts!

Managing a farm is a very diverse job. Farmers try to be dairy farmers, mechanics, financial planners, employers and managers. It is impossible to be an expert at everything!

Farmers can get help from friends, family and professional advisors who can provide assistance with some of the services required. Hiring a good advisor (i.e. an accountant) will more than pay for itself with future savings and increased revenues. When considering expansion, building contractors and other professionals can be of assistance as well.

Digging Deeper - You Be the Boss: Hiring Farm Employees

When farms grow, farmers often do not have enough time to do all of the chores themselves, so they must hire employees. Before hiring staff, make sure that you have examined your budget and can afford to hire some help. Sometimes hiring someone can help your farm make even more money by making it run more efficiently. For example, if an employee is hired to fix machinery, more jobs can be accomplished because the machinery is in good working order. It might even cost more to fix broken machinery that is not maintained than it costs to hire an employee.

Finding the right person is important. This often takes some time and requires knowledge of the characteristics you are looking for in an employee. This includes finding someone who will work well with your personality type and management style.

Advertising in local or farm publications or on websites is a good way to find someone. There are six important items that a job ad should include:

1. Job title (i.e. relief milker, herdsperson)
2. Positive things about your farm (i.e. expanding family business, modern dairy facility, century farm) that will attract a potential employee to it
3. Job description (i.e. record keeping, milking cows, cleaning milking parlour, hours of work required)
4. Positive things about working on your farm (i.e. working independently or as a team, flexible hours, modern equipment, etc.)

5. Information on wages and benefits (i.e. housing, insurance, use of farm vehicle)
6. How to apply (i.e. post office, email, telephone, in person)

Prior to interviewing employees, create a list of questions that you would like to ask them. Similarly, interviewees may have prepared questions to ask you as well.

Keeping Employees

Once the expense has been made to hire and train an employee, a good farm manager will try to keep employees happy and satisfied with their jobs. There are many things that farm managers can do to retain employees. Sometimes what employees really want is not what their bosses think will satisfy them. The chart below shows these differences:

Feelings	Employees' Rank (1=highest)	Bosses Rank (1=highest)
Full appreciation of work being done	1	8
Feeling of being involved in what is going on	2	10
Understand and help with personal problems	3	9
Job security	4	2
Good wages	5	1
Interesting work	6	5
Opportunity to move up in the organization	7	3
Personal loyalty to employees	8	6
Good working conditions	9	4
Tactful disciplining	10	7

Source: North Central Region Extension Publication. 4-H Skills for Life Animal Science Series. Dairy 3 – Leading the Way, 17.



Digging Deeper:

Handing Over the Reigns ... Farm Succession Planning

You or one of your farming friends may be considering taking over the family farm someday. In order to ensure a smooth transition from one generation to the next, it is important to create a *Farm Succession Plan*. This reduces the possibility of fights among siblings or extended family when it comes to the day to day operation, management,

A farm succession plan has three main purposes:

1. Transfer of labour and tasks from one generation to the next
2. Transfer decision making and control from one generation to the next
3. Transfer ownership from one generation to the next (land titles, assets, etc.)

and distribution of farm assets.

Since every farm business is unique, there is no standard way to design a succession plan; however, there are some basic steps to follow for any plan:

Preliminary Step – involves communicating ideas with family members, setting goals and objectives, deciding who the successor(s) will be, and making sure that the goals of the retiring and succeeding generations can fit together into a plan that will work. For example, if the retiring generation wants the farm to be carried on as a purebred dairy operation focusing on elite genetics, and the successor wishes to turn it into a commercial operation, they may not be able to come to an agreement.

Step 1 – Collect and Analyze Information – it is important to know all details of the farm business, both operationally and financially, before deciding if succession planning will be financially and logistically feasible.

Step 2 – Generate Options – brainstorm about different ways the plan could be put together to best suit the needs of everyone involved.

Step 3 – Make Preliminary Decisions about how the farm transfers will be made.

Step 4 – Develop a plan and review it. Common elements of a plan include:

1. Description of business
2. Goals and expectations (both business and personal)
3. Retirement plans for the retiring generation
4. Successor Development Plan to give the new generation some initial direction
5. Farm Business Plan because if the farm will continue it needs some future direction
6. Operating Plan to define everyone's roles and responsibilities
7. Outline the transfers of management, control and labour
8. Description of the transfer of ownership
9. Timeline of the entire transfer
10. Communications strategy to ensure that everyone works together
11. Contingency plan in case something does not work as originally thought

Step 5 – Implement the plan and monitor its progress to ensure that the transition from one generation to the next goes smoothly. Some components of the plan may need to be reworked if there are problems when it is put into practice. Make sure that everyone agrees to any changes that are made.

Work Together

Change is often difficult since people get used to doing things the way they have always done them. It will take time for everyone to adjust to the farm transfer and will involve many difficult personal and financial decisions along the way. Remember that you do not have to do it all yourselves. There are many advisors who specialize in farm succession planning that could help to ensure that all details of the farm business are accounted for in the plan. Since it is often difficult mixing business with family, involving an objective third party advisor will be beneficial because they have no emotions attached to the business.



“Precision” Dairy Management

Farmers are relying more and more on technology to help manage their farms. Many mechanizations reduce instances of human error and may be simpler and more cost efficient than hiring more labour to run the farm. While robotic milking systems may be the most obvious example of this type of management, there are several ways that farmers are using technology to better manage their farms:

- electronic (radio frequency) identification systems and related management software
- robotic calf feeding systems and milk cow feeding systems
- automatic sorting systems
- pedometers or activity monitors to detect heats and lameness
- rumination monitors to assess stomach activity
- sensors to detect contractions during calving
- gait analyzers to detect lameness
- inner-ear temperature sensors
- sensors in pipelines to assess milk quality
- electronic scales to monitor weight changes

Typically, paid and family labour accounts for 40% of the costs on a dairy farm. Mechanizing the operation with precision tools can reduce these costs tremendously; however, it is important for farmers to consider such options carefully and determine their viability in the dairy operation.



Computers on the Dairy Farm

More and more dairy farmers are using computers to make their farming operations run more smoothly and efficiently. Computer programs help keep records about health, breeding, feed tests, milk production, finances...and many more things!



Why do farmers keep computer records? They are easier to use than handwritten reports. For example, a farmer could print off the last six months of feed costs to see if they were increasing. Using a specific computer printout can help farmers find areas to improve or make management decisions.

What other ways do farmers use computers? Here are some examples:

- Creating and maintaining a farm budget
- Calculating pay cheques and deductions for farm employees
- Assessing cow and bull mating options
- Viewing sire records and cow evaluation information
- Keeping records on calving dates, breedings, health programs, etc.
- Feeding cows
- Surfing the web to find information about farming using internet search engines
- Keeping track of information on breed association, provincial milk regulatory agency or milk recording websites
- Selling cows through ads on websites
- Seeking production information for their cows
- Finding milk quality test results and pay rates for their farm
- Writing letters
- Calculating interest rates on quota and mortgages
- Electronically registering animals
- Ordering supplies online
- Emailing to communicate with others
- Finding and communicating with other farmers
- Advertising
- Operating farm machinery (i.e. Global Positioning Systems (GPS))

Purchasing a Computer for Your Farm Business

When buying a computer for your farm, there are several things you will need to consider:

- Who will use it?
- What will it be used for?
- What programs will you need?
- How big should the hard-drive be?
- What type of monitor do you need? What size of monitor will be sufficient?
- How much memory (RAM) do you need?
- Do you want a package deal or to buy all of the components of the computer system separately?
- Does it need to be portable or can it remain in one location?

Talk to friends, other farmers and computer professionals to see what they like or do not like about their computer systems. This will help you find one that will be good for you.

Buying Software Packages

Many activities on the farm can be done without specialized software packages. A basic accounting program, word processing and spreadsheet programs can be very valuable.

There are a number of software programs available specifically for farmers. Programs are available for different levels of need and different herd sizes and can be classified into the following categories:

1. Simple event recording and record display program – a very basic program designed to record and display various types of farm records.
2. Full-featured management program – a program that is designed to display records and to analyze them as well.
3. Integrated Program – a program that keeps records and analyzes them just like a full-featured management program. An integrated program is linked to milk meters and feed systems so that data is automatically sent to the computer.



In order to determine what type of program you need to buy, there are several questions to ask yourself:

- What functions do I need it to perform to help me operate my farm?
- Is it easy to learn?
- Is the manual helpful?
- Is the data simple to input, retrieve and analyze?
- Does the company offer any support or contact to the purchasers?
- How much does it cost? Will the benefits of using it outweigh the costs?
- Will upgrades for the program become available? How often?
- Will it be compatible with what other farm organizations use?

The most common software used on dairy farms in Canada is the series of Dairy COMP software that is available through CanWest DHI. There are programs available that meet the needs of both milk producers and their advisors. Dairy COMP 305 and Dairy COMP SCOUT are approved by the Canadian Quality Milk (CQM) Program.

Checking Out the Internet

If you have an internet service provider giving your farm access to the internet, there are several websites that you may wish to check out:

www.omafra.gov.on.ca	OMAFRA factsheets, policies, statistics, and links to other agricultural resources
www.dairyinfo.gc.ca	Canadian Dairy Information Centre for statistics
www.milk.org	Dairy Farmers of Ontario
www.dairygoodness.ca	Dairy Farmers of Canada
www.ayrshire-canada.com	Ayrshire Canada
www.browncow.ca	Canadian Brown Swiss and Braunvieh Association
www.guernseycanada.ca	Canadian Guernsey Association
www.holstein.ca	Holstein Canada
www.jerseycanada.com	Jersey Canada
www.cmss.on.ca	Canadian Milking Shorthorn Society

These are just a few of the websites you may find useful in your dairy business! The possibilities are endless! You can look up semen companies, government regulations, supply companies, and many other sites related to farming. The sites above all provide links to other websites within the dairy industry.

You Could Be on the Web

More and more farms are creating their own websites. This is a good way to advertise your farm and connect with dairy farmers worldwide. When creating a website it is important to think about what you want to market about your herd. There are some common traits that many farm websites include:

- Logo – design something that is unique to you
- Motto – a slogan can help define your breeding or management philosophy
- Highlight cow families that are prominent or of interest to others
- Include pictures to make it more interesting
- Farm history, current status, future goals
- Show and sale results
- Animals, embryos or semen for sale
- Guestbook

Regardless of what you put on your website, the most important thing to remember is to keep it current. Provide updates even if they are small ones. If people think that your website is not kept up to date they will stop visiting it.

Not Sure How to Design a Web Page?

There are several free web hosting sites that you can use to get your website up and running - and many of them come with a template feature which is pre-designed - you just have to fill in your information, and you have a website!

Web Hosting Sites to Explore:

- <http://www.mister.net>
- <http://members.freewebs.com/>
- <http://www.tripod.lycos.com/>



References and Resources - Taking Care of Business

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P. Coughler. “Components of a Farm Succession Plan” OMAFRA Factsheet. October 2004.

P. Coughler. “Farm Succession Planning Steps and Checklist” OMAFRA Factsheet. November 2004.

References and Resources from the previous 4-H Ontario Dairy Manual:

- OMAFRA Factsheets: Business Targets for the Dairy Enterprise, Preparing a Financial Statement
- Money Matters
- Best Management Practices

Related Activities

Milking Time Crossword	Milk Production & Marketing	All ages
Milk Nutrient Comparison	Milk Production & Marketing	All ages
Milk Product Taste Testing	Milk Production & Marketing	All ages
Milk Cheque Comparison	Milk Production & Marketing	All ages
Milking the Cows the Right Way	Milk Production & Marketing	All ages
Exploring the Udder	Milk Production & Marketing	All ages
Learning About Lactation Curves	Milk Production & Marketing	Senior & Junior members
Milk Production and Quota	Milk Production & Marketing	Senior members
DFO and Milk Marketing	Milk Production & Marketing	Senior members
Milk Quality	Milk Production & Marketing	Senior members
Farm Inspection	Milk Production & Marketing	All members
Tour of a Local Dairy	Milk Production & Marketing	All members
Consumer Perceptions	Milk Production & Marketing	All members
You’re the Director - Making	Milk Production & Marketing	All members
Healthy Lifestyle Choices - With Milk		
Milk’s Journey	Milk Production & Marketing	Junior members
I Didn’t Know that Came From Beef!	Milk Production & Marketing	Junior members

