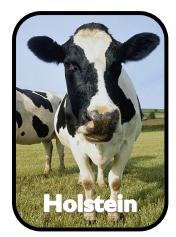


IDRC Ag Industry Training



## BREEDS OF DAIRY COWS IN US

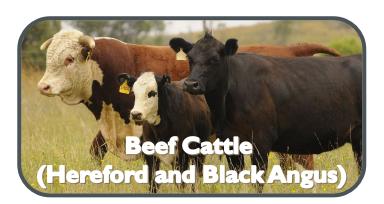




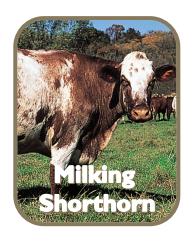


- Nationally there many kinds of Dairy Cows often used in US Dairies.
  - Holstein
  - Jersey
  - Guernsey
  - Brown Swiss
  - Ayrshire
  - Milking Shorthorn











## TYPES OF DAIRY FARMS

- **Tie stall dairy-** Cows stay in their own individual stall for much of the day, and may leave to be milked or to get exercise.
- Freestall dairy- Cows live in barns and are able to roam free in large pens with many stalls available for them to rest and a centralized feeding area.
- Pasture-based dairy- Cows live in a fenced-in pasture. Some farms may be completely pasture-based, others keep cows on pasture while they are young or during their dry period, or let them out on pasture for part of the day.











### **Calf**

After a 9 month gestation, a calf is born! Calves receive colostrum (mother's first milk) for their first day of life, then receive a milk replacer, much like baby formula!



#### Heifer

Female calves are called heifers, and they stay on the dairy farm and are raised to eventually produce milk. Male calves are called bulls, and they are normally sold to other farms to be raised.



### Cow

Around 2 years of age, a heifer gives birth for the first time, and starts producing milk. She is now considered a cow!

LIFE CYCLE OF A DAIRY COW

60-70 days after giving birth, cows are bred for the first time. The goal is for cows to give birth once a year. Farmers watch for signs that a cow is in heat, which indicates she is about to ovulate.

About 60 days before a cow gives birth, she is "dried off" and stops producing milk. This dry period allows the cow time to rest before calving.

After a 9 month gestation, a cow gives birth to a calf! Her first milk is colostrum for her calf. After that, she will be milked 2-3 times a day.



## A DAY IN THE LIFE OF A CALF

- Calves are usually fed twice per day- once in the morning and once in the afternoon.
- Newborn calves receive bottles of colostrum during their first day of life. The next few days they receive bottles of milk replacer, then are taught to drink from a pail or feeder.
- After a week or two, calves start eating solid food, such as grain. After a few more weeks they may also receive hay.
- Outside of feedings, calves spend their days resting, jumping and playing!



## A DAY IN THE LIFE OF A COW

- Cows are usually milked 2-3 times per day.
- Cows are fed a nutritious diet that keeps them healthy and promotes good milk production. Many farms hire nutritionists to create special diet plans for their herds. Diets usually consist of a mix of forages, grains, and other dietary supplements.
- Ideally, cows will have access to food at all times of the day. Depending on the type of barn a cow lives in, they will be given food individually, or will have free access to a centralized feeding area.





## A DAY IN THE LIFE OF A COW

- Cows need lots and lots of water! A cow drinks 30-50 gallons of water per day on average.
- Cows have their health monitored around the clock! Large animal veterinarians visit dairies on a regular basis to make sure cows are staying healthy. If a cow is sick and needs medicine, they will be removed from the milking herd to ensure that medicine does not enter the milk they are producing.
- When cows are not being milked, eating, or visiting the doctor, they are usually exercising, socializing with other cows, or resting!



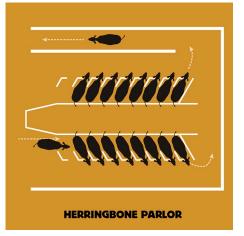




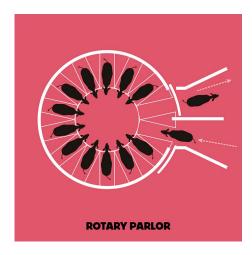


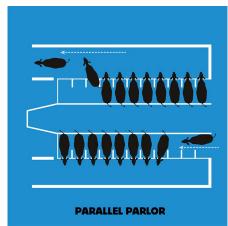
- Some common milking parlor designs you may see are:
  - Parallel- Cows stand parallel to each other, and the milking machines are attached from behind.
  - Tandem- Cows stand nose to tail, and the milking machines are attached from the side.
  - Herringbone- Cows stand at an angle, which is more space-efficient and allows easier access to the cow's udder.
  - Rotary- Cows enter one side of the "carousel" and exit from the other side once they have finished milking. Milkers attach the milking machines as the cows pass by them.











- Most farms milk their cows 2-3 times per day.
   It usually takes no more than 7-15 minutes for a cow to be milked.
- The mammary system of a dairy cow is made up of one udder, with four teats.
- The milking process:
  - Forestripping- Milkers may express a few streams of milk from each teat to check for abnormal milk or signs of mastitis, and to stimulate milk letdown.
  - <u>Disinfecting</u>- Milkers apply a mixture of iodine to each teat with a dip cup or a spray, then clean it off with a towel after approximately 60 seconds.
  - Applying the Milk Machine- Milkers may apply the milk machine by hand, or it may apply to the cow automatically in a robotic milking parlor. Even machines applied by hand will often come off of the cow automatically when they sense that she is done being milked.
  - <u>Post-Dipping</u>- Milkers apply the iodine mixture again once milking is done in order to prevent infection.



### THE MILKING PROCESS







## FIELD WORK

Most dairy farms have two harvest seasons for hay, corn, or other forages: Spring and Fall.

Prior to the harvest season, there are some seasonal activities that need to be done to prepare for the harvest. These activities could include removing rocks from the fields, plowing, planting seed, and fertilizing (spreading manure) or applying pesticides.

The harvest season is the busiest time of year for dairy farmers, and they often bring in additional people to work in the fields, or contract an outside crew to help do this work.

Two common crops grown by dairy farms are corn and hay. These forages are often chopped up into feed for the cows called corn silage or haylage.

Some common activities that may be done during the harvest season include mowing/chopping hay, bailing hay, chopping corn, driving truck to transfer the corn silage/haylage from the field to the farm, loading or unloading hay bales, packing trench, or covering trench with plastic.



## AREAS ON A DAIRY FARM





There are many different areas on a dairy farm, including:

- Calf barns
- Heifer barns
- Cow barns
- Dry cow groups
- Maternity area
- Hospital/Sick area
- Milking Parlor

- Farm Office
- Milk Storage
- Machinery Shop
- Machinery Storage
- Feed Storage
- Manure Storage
- Worker Housing





Many of these areas are dangerous and/or biosecure.





## For your safety, please follow the following tips when entering dairy farm property:

- If it is your first visit to a farm, attempt to contact the farmer to ask permission
  - If you can't find the farmer before entering a barn/ milking parlor, respect his property and your own safety. Try to find someone who can point you in the right direction instead of trying to find the parlor on your own.
- Do not enter unlit buildings/ utility rooms/ areas where there is a lot of machinery
- Often, the only people you find around a farm are operating machinery. Do not approach them, even if you think they can see you; instead, wait from a safe distance until they see you or until they finish using the machinery





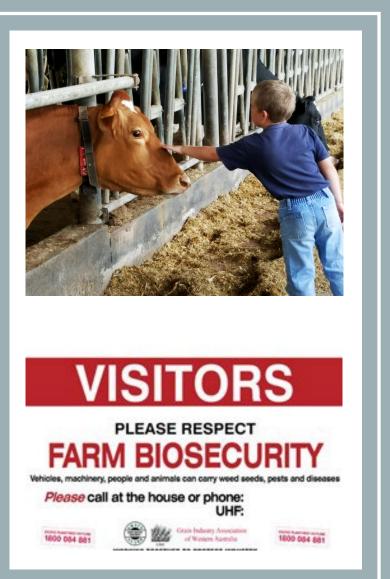
### DAIRY FARM SAFETY

### For your safety, please follow the following tips when entering dairy farm property:

- Watch your step in milk house and milking parlor- wet and slippery floors
- When entering a milking parlor, be wary of entering/exiting animals
- Avoid electric fences/ barbed wire. Do not attempt to open gates
- Do not enter pens or corrals where animals are
- When parking, do not block driveways or paths where farm machinery may pass through
- Keep conversations with employees short; get a signature and come back for an interview later in the day or on the worker's day off

### BIOSECURITY

- Biosecurity is the prevention of disease causing agents entering or leaving any place where farm animals are present
- Diseases can be carried from farm to farm, or from barn to barn. (For example, from adult cows to more susceptible calves)
- May be spread by manure on the bottom of shoes
- Ask farmer where to wash boots or come with plastic boot covers















## QUALIFYING ACTIVITIES ON A DAIRY FARM

#### Milking Cows

 Worker may tell you they are milking (ordeñando), or moving/pushing cows (moviendo/puchando vacas). These activities all fall under "milking cows."

### Feeding

 Worker could be feeding cows, feeding calves, pushing feed or mixing feed. Often, "feeding calves" is its own job on larger dairy farms, while feeding cows or pushing feed is one of many jobs. You may use "General Dairy Farm Work" on the COE for this activity.

#### Animal Health

 Vaccinating animals, giving medication to animals, watching for heat, inseminating/breeding animals. These activities are often done by a herdsman, and fall under "General Dairy Farm Work" on the COE.

### Crop/Seasonal Work

 See the "Field Work" slide for examples of seasonal qualifying activities on dairy farms

#### Other Work

 Workers often perform a variety of jobs on a dairy farm.
 Often, it makes sense to use "General Dairy Farm Work" for the qualifying activity, unless the worker is exclusively milking, feeding calves, etc.

# MILKING COWS

• Dairy farms normally milk their cows 2 or 3 times a day. Workers typically work either a day or night shift, each consisting of 8-12 hours.

- Qualifying Activities May Include:
- Milking cows
- Pushing cows
- Moving cows



## FEEDING ANIMALS

Dairy calves are often fed 2 times per day, while cows may only be fed once. However, workers will need to push feed up often throughout the day so the animals can reach it.

- Feeding calves
- Feeding cows
- Pushing feed
- Mixing feed



## ANIMAL HEALTH

Dairy farms will often have a herdsman, or a person who is in charge of the health of the herd.

- Vaccinating cows
- Giving medications to cows
- Watching for heat
- Inseminating/breeding animals





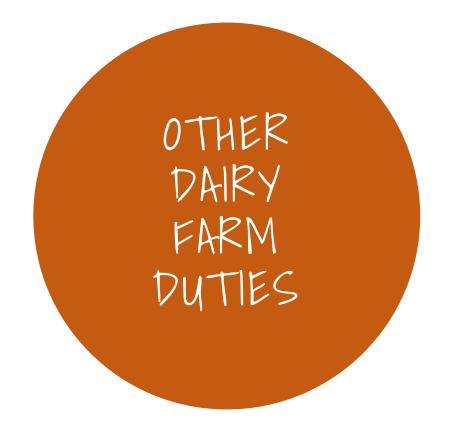
 Most dairy farms have two harvest seasons for hay, corn, and other forages: Spring and Fall.



- Plowing soil for hay/corn
- Removing rocks from field for hay/corn
- Planting hay/corn
- Cutting hay
- Chopping corn



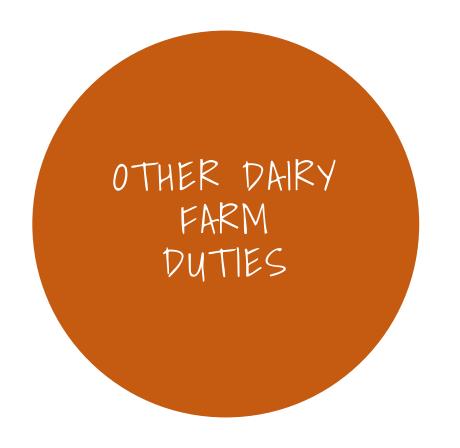




 Workers on a dairy often perform a variety of different jobs each day.
 For this reason, recruiters can use "General Dairy Farm Work" to encompass multiple qualifying activities.







- Cleaning barns
- Cleaning stalls
- Herding cattle
- Trimming hooves
- Dehorning calves
- Spreading manure





### NATIONAL DAIRY ASSOCIATIONS

- American Butter Institute
- American Dairy Association & Dairy Council
  - American Dairy Association Mideast
    - California Milk Advisory Board
      - Dairy Council of California
        - National Dairy Council
    - Northwest Dairy Association
    - Western Dairy Association
    - Wisconsin Milk Marketing Board

MAKE SURE TO REACH OUT TO THE DAIRY ASSOCIATIONS IN YOUR STATE!