



Worksheet 1: General Assessment

See Worksheet 1a: On-site Evaluation

Contents

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 - 1. Crops
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- D. Marketing
- E. Personnel
- F. Financial Data

A. Farm Description

Farm name: _____

Directions to the farm: _____

Owners name: _____

Address: _____

City: _____

County: _____ State: _____ Zip: _____

Area code and phone number: _____ Fax number: _____

Email: _____

Age of the owner: _____

Family members and ages: _____

Do you own a computer?

- Yes
- No

If yes, how is your computer used?

- Cow management program
- Milk records
- Financial accounting
- Internet
- Games
- Other (please describe): _____

Farm business arrangements:

- Sole proprietor
- Partnership
- Corporation
- LLC

Other (please describe): _____

Annual milk shipped per cow:

Milk lb _____
Fat % _____
Protein % _____
SCC _____

Production records:

- DHIA
- Other (please describe): _____

Business records:

- Farm Business Management SE or SW (Farm Management Association)
- Other (please describe): _____

Percent of total cash farm receipts from milk sales/dairy herd (including cow sales)?

- 30%
- 50%
- 70%
- 90%

Percent of family income from non-farm sources*:

- 0%
- 20%
- 40%
- 60%
- 80%

*Attach your computerized data, or see: **Worksheet 2: Financial Data Income Sheet**
Worksheet 3: Financial Data Balance Sheet

See: **The DHI Yardstick** on-line at <http://www.mndhia.org/>
The DHI Scorecard on-line at <http://www.mndhia.org/>

- North

Farm site layout:

- South

B. Strategy

How many years do you plan to be in the dairy business? _____

Do you have a written Mission Statement for your dairy business?

- Yes (please attach your Mission Statement)
- No (see **Worksheet 5: Developing a Mission Statement**)

What are the **short-term farm business goals** (less than one year)?

See **Worksheet 6: SMART Goals**

What do you consider to be the **three problems** on this farm that if solved would make the biggest difference in the next 12 months?

1. _____
2. _____
3. _____

What are the **short-term family goals**? _____

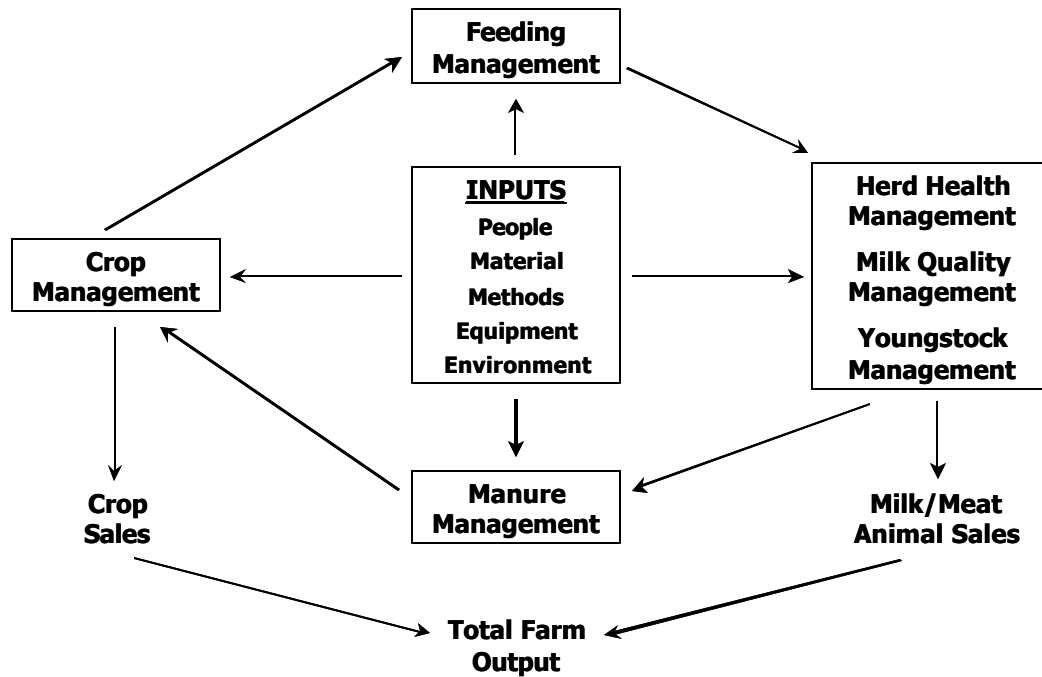
What **three changes** in this farm operation over the next 5 years would make the most positive differences?

1. _____
2. _____
3. _____

What are your **long-term family goals**? See **Worksheet 7: DRIVE Goals**

As a participant in the Dairy Diagnostics Profitability Enhancement Program, what are your expectations?

C. Dairy Production System



1. **Crops**
Cropping enterprise
2. **Feed**
Feed storage
Feeding equipment
Feed bunk management, lactating and dry cows
Water access, lactating and dry cows
Ration
3. **Cows**
Youngstock
Housing of youngstock
Health of youngstock
Milking cows
Housing of milking herd
Milking
Reproduction/genetics
Breeding program
Dry cows
Health
Culling
Biosecurity
Welfare
4. **Manure**
Handling
Storage
Nutrient management/accounting

1. Crops

Cropping Enterprise

Do you test your soil?

- Yes (please include any examples of recent tests you may have)
- No

What is your crop rotation? _____

Which crops do you plant?

| Crop | Acres | Yield/Acre |
|-----------------|-------|------------|
| Alfalfa | | |
| Corn | | |
| Corn silage | | |
| Soybeans | | |
| Small grains | | |
| Emergency crops | | |
| Other: | | |
| Other: | | |

How many years do you keep an alfalfa stand? _____ years

What are your major pests and disease problems for the following crops?

Alfalfa: _____
Corn: _____
Corn silage: _____
Soybeans: _____
Small grains: _____
Other: _____

Which products do you use for weed and pest control on the following crops?

Alfalfa: _____
Corn: _____
Corn silage: _____
Soybeans: _____
Small grains: _____
Other: _____

2. Feed

Feed Storage

Silos:

| Silo type ¹ | Crop stored | Dimensions ² | Storage capacity ³ |
|------------------------|-------------|-------------------------|-------------------------------|
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¹ For example: Concrete stave, Oxygen-limiting, Bunker, Bag

² (Diameter x Height) or (Length x Width x Height)

³ See **Factsheet 1: Feed Storage Tables**

See **Factsheet 2: Bunker Silo Management**

Hay storage:

Hay mow size (L) _____ x (W) _____ x (H) _____ or no bales _____

Pole barns, etc., size (L) _____ x (W) _____ x (H) _____

What feed handling equipment do you use the majority of the time?

(check all that apply)

- Silo unloader (upright silo)
- Front end loader for horizontal silo
- Bulk storage for purchased feeds
- Feed mix mill
- Mixer with scales, stationary
- Mixer with scales, wheel-mounted
- Feed wagon, no scales
- Mechanical bunk feeder
- Individual magnet feeder
- Individual computer-controlled feeder
- Other (please specify) _____

Feeding Equipment

Feed mixing equipment:

- Grinder mixer
Model: _____ Capacity: _____
- Mineral mixer
Model: _____ Capacity: _____
- TMR mixer
Model: _____ Capacity: _____ Type of scale: _____
(electronic/beam)

TMR

Ingredient mixing order:

1. _____
2. _____
3. _____
4. _____
5. _____

Total mixing time: _____ minutes

See **Factsheet 3: TMR Feeding Management**

Automated feeders

Number of cows per feeder _____ cows/feeder

Component feeding

Describe current feeds and daily feeding sequence (milking cows):

| Time | Feed type | Amount fed (bales, forks, etc.) | Where fed |
|------|-----------|------------------------------------|-----------|
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Purchased protein/supplement ingredients, cost per ton: _____

Feed Bunk Management, Lactating and Dry Cows

Feed access: _____

See **Worksheet 8: Estimating Feed and Water Access**

How often are bunks cleaned? _____ times/week

Feed refusal amount _____% Estimated Measured

What happens to the refusals? _____

What percent of cows lying in stalls are chewing cuds? _____ %

See **Worksheet 9: Calculating Cud Chewing Index and Cow Comfort Quotient**

Water Access, Lactating and Dry Cows

Location of waterers: _____

Type of waterers: _____ No. of animals/waterer: _____

How often are waterers cleaned? _____

Water access: _____

See **Worksheet 8: Estimating Feed and Water Access**

Have you had a water analysis?

- Yes (please describe how often the water is analyzed): _____

- No

Ration

How often do you recalculate the ration of the milking herd? _____ times per year

What are your criteria for recalculating the ration of the milking herd?

- When production drops
- New or change of feed and/or silo
- Forage moisture changes
- Routine periodic (i.e., monthly) recalculation
- Other (please describe): _____

See **Factsheet 4: Ration Guidelines for Milking and Dry Cows**

See **Factsheet 5: Milk Cow Nutrition Monitors on Dairy Farms**

See **Worksheet 10: Feed Intake Data and Daily Feeding Log**

3. Cows

Youngstock

Do you raise your own youngstock/replacements?

- Yes
- No, I sell all my calves and buy heifers back
- No, another farmer raises my youngstock

Housing of youngstock

Are youngstock housed in barns separate from mature cows?

- Yes
- No

Are your youngstock housed separately from other cattle until 6 months old?

- Yes
- No

Describe the housing of your youngstock, birth until calving:

| Age group* | Housing facility** |
|-------------------|---------------------------|
| | |
| | |
| | |
| | |
| | |
| | |

* For example: Birth until weaning or weaning until 6 months

** For example: Individual hutches, greenhouse, freestall barn, or pasture

Health of youngstock

Do you have a specific delivering area so that salesmen (others) do not have direct contact with calves/animals?

- Yes
- No

How do you usually feed first colostrum to newborn calves?

- Allow calf to nurse dam
- Assist calf feeding from dam
- Feed from open bucket, nipple bucket or bottle with colostrum of own dam (not allow calf to nurse dam)
- Feed from open bucket, nipple bucket or bottle with colostrum of other disease-free dam (not allow calf to nurse dam)
- Esophageal feeder

What volume of colostrum do calves receive in the first 24 hours of life?

- I don't know
- 4 qt at birth + 2 qt 12 hr later
- Other (please describe): _____

Please rank the overall health status and severity of health problems in your youngstock.

Very little = few sick, none dying
Moderate = several sick, few dying < 2%
Severe = many dying > 10%

Overall health problems in youngstock:

- None Very little Moderate Severe Unknown

Pneumonia:

- None Very little Moderate Severe Unknown

Diarrhea:

- None Very little Moderate Severe Unknown

Bloating:

- None Very little Moderate Severe Unknown

Other diseases (please describe): _____

- None Very little Moderate Severe Unknown

Percentage of calves that died in the first 6 months of life: _____%

Percentage of calves sick in first 6 months of life: _____%

Milking Cows

Housing of the milking herd

What kind of housing do you have for the lactating herd?

- Tie stall
- Freestall barn with curtain sides
- Freestall barn, conventional steel sides
- Open front barn with loose housing
- Other (please describe): _____

What kind of bedding is used in stalls of the dairy cows?

- Sand
- Sawdust
- Mattresses
- Straw
- Recycled solids
- Paper
- Other (please describe): _____

What kind of walking surface is provided for your dairy cows?

- Slatted floor
- Grooved cement
- Concrete floor
- Other (please describe): _____

Describe your dairy barn lighting:

- Natural light only
- Natural light supplemented with artificial lighting
- Pasture
- Exposed to 16 light hours daily (20-foot candle minimum) and 8 hours dark
- Has never been measured

Milking

What kind of milking facility do you have?

| Milking system | No. of milking units | Capacity (no. of stalls) |
|-----------------------------------------------|-----------------------------|---------------------------------|
| Bucket system in a stanchion/tie stall barn | | |
| Pipeline system in a stanchion/tie stall barn | | |
| Step-up parlor | | |
| Swing parlor | | |
| Herringbone parlor | | |
| Side-opening parlor | | |
| Parallel parlor | | |
| Carousel | | |
| Other (please describe): | | |

Does your milking parlor include the following options?

- ATO
- Rapid exit
- Automatic daily milk measuring

Frequency of milking equipment checks:

- 1 time per year
- 2 times per year
- Other: _____ times per year

Parlor throughput: _____ cows/hour/milker
 _____ lb of milk/milker

Frequency of milking:

- 2 times per day
- 3 times per day

How many weeks of the year do you teat dip all cows after milking? _____ weeks

What was the average SCC last 12 months? _____

Frequency: _____ per year

What were high and low SCC last 12 months?

High: _____, in the month of: _____

Low: _____, in the month of: _____

Standard plate count average last 12 months: _____

Frequency: _____ per year

Lab pasteurization count average last 12 months: _____

Frequency: _____ per year

PI counts last 12 months: _____

Frequency: _____ per year

Coliform counts last 12 months: _____

Frequency: _____ per year

Average number of (new) mastitis cases each month: _____

Describe your antibiotic treatment record system:

- Computerized
- Manual records
- Calendar
- Memory
- Other (please describe): _____

Describe how treated cows are identified: _____

Number of antibiotic residue violations last 12 months: _____

Where do you purchase the medicines for your animals?

- Local veterinarian
- Direct sales route
- Mail order catalogue
- Farm & Fleet stores=

Where do you get treatment advice?

- Herd veterinarian
- Drug sales representative
- Other dairy farmers
- Other: _____

Reproduction/genetics

What breed is your milking herd?

- Holstein Friesian
- Jersey
- Brown Swiss
- Other (please describe): _____

What percentage of the herd is registered?

- 0%
- 1 - 49%
- 50 - 99%
- 100%

Describe the activities done on your farm to detect heat (i.e., when, where, how long):

Do you use a heat-synchronizing program?

- Yes (please describe): _____
- No

Breeding program

Type of breeding program:

- Artificial insemination
- Artificial insemination and natural service ("clean-up bull")
- Natural service
_____ number of bulls
_____ number of bulls that have had breeding soundness exams

Who does the breeding?

- Professional AI technician only
- Farm personnel only
 - one person does all the breeding
 - 1 or 2 persons share the breeding
 - many farm AI technicians are used for the breeding
- Professional AI technician and farm personnel

Dry cows

Describe housing of the dry cows:

| Dry group* | Housing facility** |
|------------|--------------------|
| | |
| | |
| | |

* For example: Close-up group, or from 3 weeks before up until calving

** For example: Freestall barn, or inside pen with straw bedding

Dry-treat all quarters of all cows at dry off?

- Yes
- No

Dry-treat selected cows?

- Yes (please describe criteria): _____

- No

Have you divided your dry cows in a close-up group and a far-off dry group?

- Yes
- No

Is routine body condition scoring done?

- Yes
- No

What is your overall estimate of body condition score of the milking herd? _____

What is your overall estimate of body condition score of the far-off dry cows? _____

What is your overall estimate of body condition score of pre-fresh cows? _____

See **Worksheet 10a: Body Condition Scoring Worksheet**

Health

Cow health disorders:

| Health disorder | Average incidence* | Range* | Cases/year - Your Farm - |
|--------------------------------------------------|--------------------|------------|--------------------------|
| Calving difficulty: 1 st lactation | 25% | ? | |
| 2 nd + lactation | 10% | ? | |
| Retained placenta | 8.6 | 1.3 - 39 | |
| Milk fever | 6.5 | 3 - 22 | |
| Displaced abomasum | 1.7 | 0.3 - 6.3 | |
| Ketosis | 4.8 | 1.3 - 18.3 | |
| Metritis | 10.1 | | |
| Mastitis | 14.2 | 1.7 - 54.6 | |
| Lameness | 7.0 | 1.8 - 30 | |
| Cystic ovaries | 8.0 | 1 - 16 | |
| Hardware disease | 0.8 | ? | |

* Averages and ranges as taken from review of literature; Kelton, D.F. et al., 1998, JDS 81:2502-2509.

See **Worksheet 11: Cow Health Disorders and Dry Cow Evaluation**

See **Worksheet 12: Problem Cow Diagnosis**

See **Factsheet 6: Reducing Mastitis**

Veterinary use on the farm:

- Only for emergency cow care
- Only for herd health care/advice
- Both of the above
- None of the above

How do you maintain animal health? (please describe): _____

How many times was a veterinarian on your farm last year to service the dairy herd?

_____ times for herd health visit

_____ times for an emergency visit

What type of routine preventive medicine program do you have with your veterinarian?

- Reproduction
- Vaccination
- Mastitis control
- Parasite control
- Other (please describe): _____

How do you record all diagnoses, treatments and vaccinations?

- Computerized
- Manual records
- Calendar
- Memory
- Other (please describe): _____

Do you have separate maternity pens/sick pens?

- No maternity or sick pens
- Combined maternity/sick pen
number of pens: _____
- Separate maternity/sick pen
number of maternity pens: _____
number of sick pens: _____

Are cows that have recently calved kept in close contact with sick cows?

- Yes
- No

Cleaning of the maternity/sick pen:

- After every calving and/or sick animal
- Every _____ weeks or every _____ calving and/or sick animal

Disinfecting of the maternity/sick pen:

- After every calving and/or sick animal
- Every _____ weeks or every _____ calving and/or sick animal

Bedding material in the maternity/sick pen:

- Sand
- Sawdust
- Mattresses
- Straw
- Recycled solids
- Paper
- Other (please describe): _____

Culling

Total number of cows culled: _____

Number of cows culled voluntarily:

Low production: _____

Other reasons: _____

Please specify: _____

Number of cows culled involuntarily:

Reproduction: _____

Mastitis: _____

Lameness/foot or leg problems: _____

Died: _____

Other reasons: _____

Please specify: _____

Biosecurity

Are visitors required to:

- Completely change clothing to visit your farm
- Must wear thoroughly sanitized boots and clean coveralls
- Must wear plastic disposable boots
- No requirements

Comments: _____

Do you purchase animals or do you have a closed herd?

- Yes, I purchase animals.

What animals are purchased?

- Youngstock
- Springing heifers
- Mature cows

- No, I do not purchase animals

When animals are purchased, is their health status as determined by appropriate testing (blood, milk, study or research) similar or better than your own herd?

- Yes, their health status is better or similar
- No, their health status is sometimes worse
- The health status of the purchased animals is unknown
- I don't know the health status of my own herd

Do you exhibit your cattle at cattle shows?

- Yes
- No

Has your herd tested positive for BVD?

- Yes, my herd has tested positive for BVD
- No, my herd has tested negative for BVD
- My herd has never been tested for BVD

Has your herd has tested positive for Johne's Disease?

- Yes, my herd has tested positive for Johne's Disease
- No, my herd has tested negative for Johne's Disease
- My herd has never been tested for Johne's Disease

If your herd has tested positive, do you use preventive actions against Johne's Disease?

- Yes (please describe): _____

- No

See **Johne's Disease Dairy Risk Assessment Form** on-line at:

<http://www.bah.state.mn.us/diseases/johnes/dairy.pdf>

Do you participate in the Milk and Dairy Beef Quality Assurance Program?

- Yes
- No

Welfare

What is the size of your stalls?

Length: _____ Width: _____

Describe cow cleanliness and hock injuries: _____

See **Worksheet 13: Cow Cleanliness Scorecard**

See **Worksheet 14: Hock Injury Scorecard**

See **Worksheet 15: Lameness Scoring Worksheet**

Make an estimate of cow activity during each of the approximate time periods below. Fill in the number of cows per activity.

| Activity | 1 hour after morning milking | 4 hours after morning milking |
|--------------------------------------|------------------------------|-------------------------------|
| Lying and ruminating | | |
| Lying and resting/sleeping | | |
| Standing and ruminating | | |
| Standing | | |
| Eating/drinking | | |
| Heat behavior | | |
| Other behavior (please describe): | | |

4. Manure

Handling

How do you handle your manure?

(check the most appropriate choice)

- No appreciable storage
- Short-term storage, haul every few days
- Storage for 2-3 months
- Long-term storage (at least 6 months)
- Other (please describe): _____

Storage

What type of storage facility is used?

(check the most appropriate choice)

- Above ground tank
- Below ground tank
- Lagoon
- Oxidation ditch
- Pile (concrete pad, crushed rock)
- Bunker
- No storage, haul daily
- Other (please describe): _____

How is the manure of the milking herd stored and applied on the farm?

(check the most appropriate choice)

- Solid
- Semi-solid
- Liquid
- In more than one form

Nutrient Management/Accounting

Do you have a systematic manure management plan?

- Yes
- No

What criteria are used to determine the amount of manure applied?

- Manure nutrient analysis
- Soil testing
- Distance from manure storage (please explain): _____

- Season of application (please explain): _____

D. Marketing

How do you market your crops?

- Contract
- Daily price
- Crops are fed to livestock on the farm

How do you sell your milk?

- Daily price
- Contract

Describe your marketing plans: _____

E. Personnel Plan

Family Labor

How many family members work on the farm? (please provide their names, ages and number of hours they work per week):

| Name of family member | Age | Hours worked per week |
|------------------------------|------------|------------------------------|
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Hired Labor

How many hired people work on the farm? (please provide their names, ages and number of hours they work per week):

| Name of hired person | Age | Hours worked per week |
|-----------------------------|------------|------------------------------|
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F. Financial Data

See **Worksheet 2: Financial Data Income Sheet** or attach your computerized data (for example, FinAn Income Statement)

See **Worksheet 3: Financial Data Balance Sheet** or attach your computerized data (for example, FinPack Balance Sheet)

This information is necessary to perform financial benchmarking.

Calculate profitability:

1. Rate of Return on Assets (ROROA)
2. Rate of Return on Equity (ROROE)

Financial efficiency:

1. Net profit margin
2. Asset turnover ratio

Liquidity:

1. Current ration
2. Working capital

Solvency:

1. Debt to asset

Repayment capacity*:

1. Term Debt Coverage Ratio
 2. Term Debt Coverage Margin
- * Optional