

Ecology – The Science of Connections

- *“In living nature , nothing is unconnected to the whole”*

Human Health

- Healthy Animals – optimum nutrition, minimum stress
- Healthy Plants
- Soil Health – Soil Life



Managing Soil Life

- Eliminate biocides
- Balance minerals (not just NPK)
- Feed the soil with manure, compost, plowdown crops, good rotation

Diversity

- Healthy soil requires a diverse plant community
- Many different species
- Many different types of plants
- Interplanting
- Weeds
- Crop rotation

Cover crops

- Protect the soil
- Capture sunlight
- Feed soil life when incorporated
- Utilize nutrients and store them for future crops
- Increase organic matter

Organic Livestock Husbandry

- HEALTH IS NORMAL
- DISEASE IS PREVENTABLE
- I AM RESPONSIBLE

Emphasis on Health

- Feeding
- Housing
- Care and Handling

Feeding

- Ration Balanced for Optimum Rumen Function
- High quality forages
- Lower level of concentrates/ High forage to grain ratio
- Less supplemental protein
- Mineral and vitamin balance

Housing and Handling

- Exercise
- Fresh air
- Sunlight
- Shelter from elements
- Clean, dry comfortable surroundings
- Stress free environment

Organic Requirements

- 100% certified organic feed
- No use of antibiotics, hormones or other prohibited substances
- Cows have access to outdoors in winter
- Grazing in summer

Disease Treatment

- PREVENTION (the #1 treatment)
- Old Home Remedies (e.g. apple cider vinegar, stripping and massaging with ointment, etc.)
- Probiotics – immune stimulants
- Herbal extracts, tinctures (cammomile, garlic, oil of oregano)
- HOMEOPATHY

Most Common Fears (before and during transition)

- WEEDS
- LOW YIELDS
- MASTITIS
- HIGH SCC
- WILL MY NEIGHBOURS THINK I'M CRAZY?

Real Problems (30 farms surveyed)

- Foot problems (5 farms) – all had cows walking on wet concrete.
- Respiratory disease, especially in small calves
- Low soil Phosphorus in farms more than 15 years in organic production
- Higher SCC on average

QUESTIONS ???

The background of the slide is a solid, warm brown color. Overlaid on this background are several stylized, overlapping leaf shapes. These leaves are rendered in various shades of brown and orange, creating a textured, autumnal effect. The leaves are scattered across the page, with some appearing more prominent than others.

Cover Crops

- Bring greater diversity to the farm:
 - Red clover
 - Oilradish
 - Oats
 - Rye
 - Buckwheat
 - Sorghum
 - Annual weeds

crop

- Spelt
- Oats
- Clover
- Corn
- Soybeans

cover crop

- Oil radish
- Red clover
- Oats
- Min. tilled
- spelt

Year

crop

cover

winter

1	spelt	Red clover	oats
2	soys	rye	rye
3	rye	Sweet clover	Sweet clover
4	buckwheat	oats	oats
5	barley	Red clover	oats
6	soys	spelt	spelt

Crop

cover

tillage

winter

Hay			hay
hay			hay
hay		cultivator	open
corn		disc	mintill
oats	Volunteer oats	disc	spelt
spelt	buckwheat	disc	mintill
Mixed grain	underseeded		hay

Crop Yield Gross cost actual net

corn	120 bu.	\$ 700	\$250	\$750	\$500
hay	6000 lb	\$ 480	\$160	\$560	\$400
soy	40 bu	\$ 700	\$150	\$500	\$300
Mixed grain	1 T.	\$ 250	\$150	\$300	\$150
peas	1 T.	\$ 350	\$200	\$525	\$325
spelt	1 T.	\$ 350	\$150	\$525	\$375

Summary- Stockless farms

- Look after the soil – keep it covered
- Feed the soil with lots of plowdowns
- Manage N. with legumes
- Soil test and balance with amendments
- Use as much of the growing season as possible
- Sell only high value-low carbon materials
- Have one year devoted to soil improvement

ORGANIC COWS

- Forage grown on living, mineralized soil
- Ration for optimum rumen function
- Housing and handling to minimize stress

The Organic Market - Growth

- co-op started in 1989 with grain
- began cheese from 6 farms in 1995
- Organic Meadow milk in 1996 – sales were one third of production
- 2006 – 12 million litres from 40 Ontario farms

Outlook for Organic Dairy

Sales grow 30%/yr. without advertising

U.S. organic sales – 4% of industry

E. U. - 10 to 20% of industry

Canada – organic milk makes up less than 1% of industry

Will the Supply catch up?

- 3 to 4 year transition period
- most producers are not motivated
- some are not easily adapted
- ORGANIC MEADOW DOES NOT PROJECT BALANCE WITHIN THE NEXT TEN YEARS**

What farmers need

- Motivation
- Reliable technical information
- Extension assistance
- A support group (other farmers)

Organic Meadow's Mission

- To recruit and train organic farmers
- To assist them through transition
- To represent them in the market
- To ensure adequate financial returns

Organic Meadow Mission Statement

- Organic Meadow Co-operative Inc. was formed to provide an opportunity for organic farmers to collectively store, process and market organically grown products. We are committed to ensure fair, consistent financial returns to farmers while maintaining quality at every stage from soil to table. We are dedicated to encouraging ecologically sound, diverse, self-reliant farm units where production efficiency is achieved in harmony with the surrounding environment.

Organic Meadow Mission Statement

- We will work to build unity among farmers based on the principles of co-operation, and will affirm their right to self determination and the maintenance of a strong rural heritage. Organic Meadow will strive to decrease the distance both physically and psychologically between farmers and customers. Our dealings with members, employees and customers will be carried on in an atmosphere of openness, honesty and trust.