

The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance.

USE OF AN IRRIGATION SYSTEM ON OUR PASTURES

**MATHIEU PALERME
FERME PALERME SENC
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CONFERENCE PLAN

- 1) ENTREPRISE PRESENTATION
- 2) DESCRIPTION OF PASTURES
- 3) ARRIVAL OF THE IRRIGATION SYSTEM
- 4) COMPONENTS OF THE IRRIGATION SYSTEM
- 5) USE OF THE IRRIGATION SYSTEM

CONFERENCE PLAN (end)

6) COST OF THE IRRIGATION SYSTEM

7) GAINS OBTAINED BY IRRIGATION

8) MISTAKES MADE

9) STRENGTHS AND WEAKNESSES OF THE SYSTEM

10) SUCCESS TIPS

11) FUTURE

ENTREPRISE PRESENTATION

- MEMBERS
 - PARENTS
 - BROTHER
- MAIN PRODUCTIONS
 - PUMPKINS, SQUASH
 - BEEF CATTLE (70 CH cows and 140 cross vaches)
 - SHEEP (100 Dorset crossbreeds)
- AREAS
 - 100 acres in PUMPKINS (41 ha)
 - 250 acres in CEREALS (101 ha)
 - 350 acres in GRASSLAND (142 ha)
 - 400 acres in PASTURE (162 ha)



PASTURE DESCRIPTION

- AREAS

- 300 acres IMPROVED (121ha)
- 100 acres NATURAL (41ha)

- SOIL TYPE

- 60 % Dalhousie, clay loam
- 40 % Sainte-Rosalie, clay
- Water retention capacity
 - sand < silt < loam < clay



PASTURE DESCRIPTION

- PASTURE SYSTEMS

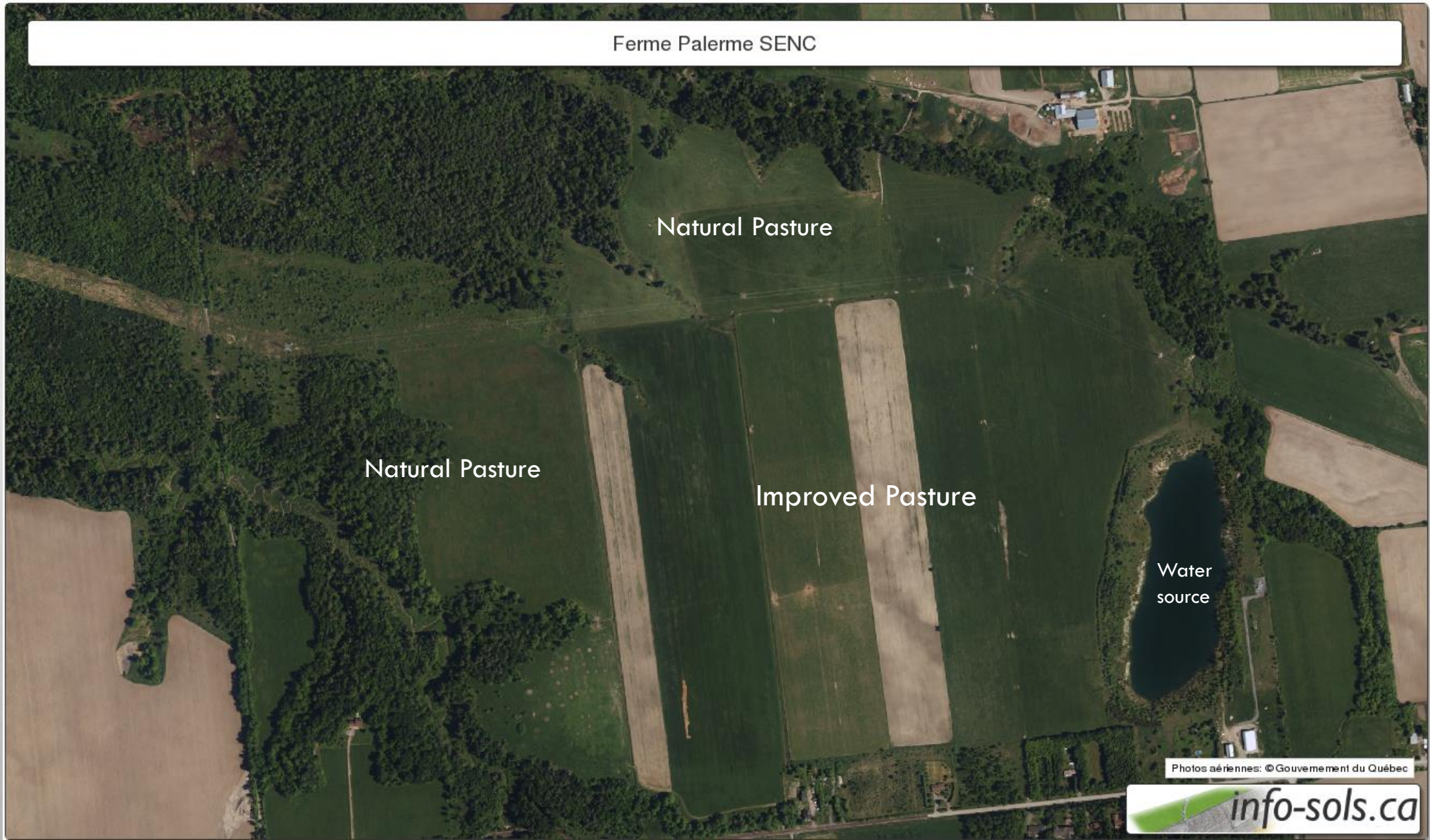
- Improved strip grazing, daily movement
 - Plots all drained
- Natural pasture in rotation, grazing time → 1 week

- PLANTS PRESENTS

- 70 % GRASS (mix of canary seed, timothy and brome)
- 30 % LEGUME (white clover)



PASTURE DESCRIPTION



ARRIVAL OF THE IRRIGATION SYSTEM

- WHEN
 - FOR THE 2012 GRAZING SEASON
- WHY
 - DISCUSSION WITH AN AGRONOMIST FROM MAPAQ IN 2010
 - AVAILABILITY OF A WATER SOURCE
 - ELABORATED SYSTEM OF WATER LINE PRESENT
- PURCHASE
 - K-LINE IRRIGATION SUPPLIER FOR THE SYSTEM
 - DUBOIS AGRINOVATION FOR TECHNICAL ADVICE



Screenshot of the K-Line Irrigation website. The search bar shows "Country: Canada" and "State/province: Quebec". The search results show "Vanden Bussche Irrigation (Delhi)" with contact information: "PO Box 304 Hwy #3 | Delhi | Ontario | N4B2X1", "Contact: Marc Vanden Bussche", "Phone: (519) 582-2380", "Fax: (519) 582-1514", and "Serving: Extreme Southeast Ontario". There are links for "WEBSITE" and "SEND EMAIL".



SYSTEM COMPONENTS

- WATER SOURCE
 - OLD SAND PIT FILLED WITH WATER
 - 25 ACRES WITH A DEPTH OF 40 FEET
- PUMP
 - ELECTRIC, 5 HP
- 3 000 METERS OF 1"¼ PVC PIPE
 - TO BRING WATER TO THE WATER BOWL/K-LINE SYSTEM



COMPONENTS (end)

- **2 K-LINE UNITS OF 400 FEET EACH**

Description of one unit

- 8 sprinkler pods placed at 50 foot intervals
- Covers 50 feet in diameter
- Covered area $400 \times 50 = 20\,000$ square feet (0.5 acre)

➤ **THE 2 UNITS IRRIGATE**

➤ **an area of 1 acre**



USED OF THE IRRIGATION SYSTEM

- TERMS OF USE

- NO PRECIPITATION FOR 7 DAYS
- WHEN DUST RISES ATV PASSAGE
- ACCORDING TO SOIL MOISTURE (touch)



- AFTER PASSAGE OF CATTLE

- TAKE OUT THE CATTLE WHEN THE GRASS HAS REACHED THE HEIGHT OF 5-6 inches
- INSTALL THE SYSTEM AS SOON AS THE ANIMALS LEAVE (THE SYSTEM FOLLOW THE COWS)

USED OF THE SYSTEM (end)

- TIME OF THE DAY
 - 2 TIME PER DAY
- IRRIGATION DURATION
 - 10-12 HOURS OF WATERING
- QUANTITY OF WATER SUPPLIED TO THE PASTURE
 - 2 INCHES OF WATER IS 200 M³ (200 000 LITERS/ACRE)
- REINTRODUCTION OF THE HERD INTO THE PLOT
 - DRYING PERIOD OF AT LEAST 30 DAYS
 - COWS NEVER HAVE ACCESS TO A WET PLOT

COST OF THE IRRIGATION SYSTEM

	INITIAL COST	ANNUAL COST ¹
2 K-Line system ²	3 400.00	340.00
Pump and operation	2 500.00	250.00
K-Line labor installation (2 h@20\$/h)	40.00	40.00
Water pipe for water bowl and K-Line	15 000.00 ³	1 500.00
Water line labor installation	2 000.00	0.00
Total Cost	22 940.00	2 130.00
Irrigated Area (acres)	300	300
Cost per Acre	76.50	7.10

1- DIRTA 10 % (Depreciation, Interest, Repair-maintenance, Taxes, Insurance)

2- Includes pipes, pod and sprinklers

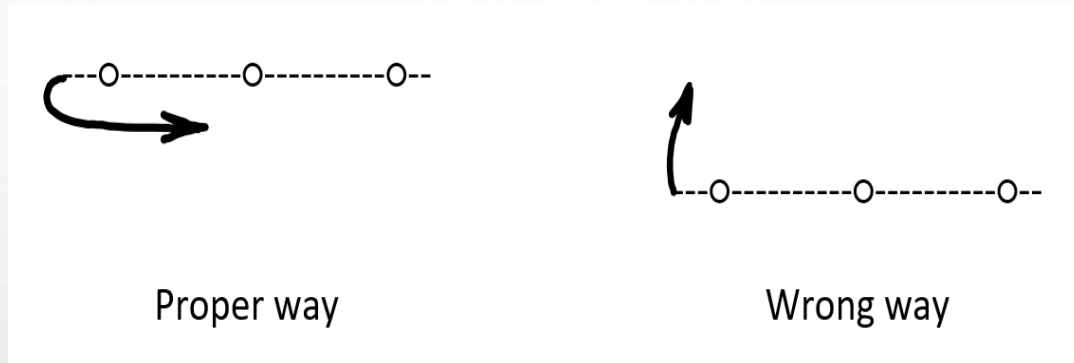
3- Cost subsidized by Prime-Vert program

GAINS OBTAINED BY IRRIGATION

- SUMMER 2020, 40 DAYS WITHOUT RAIN
- MUCH LESS ROUND BALE SERVED IN PERIOD OF DROUGHT BECAUSE WITHDRAWAL OF ANIMALS FROM THE PASTURE ONLY 2 WEEKS
- NO OVERGRASS MADE ON PASTURES
- IN 2012 WE HAD TO SERVE 250 R.B. WHILE THIS YEAR, WE ONLY SERVED HALF
 - A SAVING OF \$ 9 375 (125 R.B. @ \$ 75)

MISTAKES MADE

- MOVING SYSTEM, ONLY ONE WAY TO DO



- ABSOLUTELY REMOVE THE SPRINKLERS AND PODS FOR THE WINTER OTHERWISE, CRACKING AND BREAKAGE
- WATER FLOW NOT POWERFUL ENOUGH, ESPECIALLY WITH 2 K-LINE UNITS

SYSTEM STRENGTHS

- ECONOMIC
- EASY INSTALLATION
- EFFICIENT IRRIGATION
- NO NEED FOR SIGNIFICANT PRESSURE FOR ITS OPERATION
- SUITABLE FOR ALL LANDS
- EFFICIENT USE OF WATER
- EASY TO STRETCH
- QUICK AND EASY TO MOVE WITH AN ATV



SYSTEM WEAKNESSES

- NEED A CONTINUOUS WATER SUPPLY
- DOES NOT WORK WITH A WELL
- REQUIRES A SOURCE OF WATER UNDER PRESSURE OR BY GRAVITY
- MUST BE MOVED MANUALLY
- MUST BE MOVED WHEN IT IS WORKING
- MUST DISASSEMBLE IT FOR THE WINTER PERIOD
- NOT DESIGNED FOR VERY LARGE AREAS

SUCCESS TIPS

- AVAILABILITY OF A WATER SOURCE
- REPAIR ALL LEAKS FROM PIPE AND GASKETS
- USE THE SAME NOZZLE SIZE THROUGHOUT THE SYSTEM TO ENSURE UNIFORM WATER DISTRIBUTION
- AT THE INLET OF THE SYSTEM, THE WATER MUST HAVE A PRESSURE OF 60 PSI
- GOOD MATCH UNIT AREA

FUTURE

- CURRENTLY HAS A SYSTEM FOR TROUBLESHOOTING, WISH TO EQUIP WITH A SYSTEM FOR THE TERM OF THE GRAZING

The background is a light gray gradient. In the top-left and bottom-right corners, there are several realistic-looking water droplets of various sizes, some overlapping. The droplets have highlights and shadows, giving them a three-dimensional appearance.

THANK YOU!
QUESTIONS?