ORGANIC SPELT PRODUCTION

VERMONT GRAIN GROWERS CONFERENCE 2019

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SMALL VALLEY MILLING
HALIFAX, PA
SMALL VALLEY MILLING HISTORY
PAST TO PRESENT (1996-TODAY)
HISTORY OF ANCIENT GRAINS

- Grains are members of the grass family
- Many ancient wheats are hulled
  - Einkorn, Emmer, Spelt
- Spelt development
- Spelt varieties with unique attributes
ORGANIC CEREAL GRAIN PRODUCTION

PLANTING → HARVESTING

MARKETING → STORAGE

HARVESTING → PLANTING
Key factors that affect planting

- Typically time constrained
- Weather variable
- Concerns with growing season length
GROWTH PROGRESSION

COVER CROP?

TIMING WITH CEREAL CROP

FROST SEEDING

LATE MARCH

EARLY MAY
EARLY SPRING

Diagnose and triage conditions early
HARVESTING

COMBINE ADJUSTMENT

MARKET

GRAIN QUALITY

TIMELY HARVEST

MOISTURE
HARVESTING

FOOD GRADE MARKET

COMBINE ADJUSTMENT

GRAIN QUALITY

TEST WEIGHT

MOISTURE

FOREIGN MATTER

VOMITOxin

DAMAGED GRAIN

GARLIC, VETCH, COCKLE, ROCKS, WEEDS
STORAGE

CLEAN BINS
SPRAY WITH EVERGREEN

TREAT GRAIN
WITH DIATOMACEOUS EARTH

MONITOR

MOISTURE
BELOW 12%

INSECTS

GRAIN TEMPERATURE
COOL TO 50°
STORAGE

- Storage for field grain only, not flour
- Fan size and burner correlate to size of bin
- Essential to monitor and maintain optimal conditions
PROCESSING / DEHULLING

- When working with hulled grains, you inherently have more waste.
- Waste drives energy usage and extended processing time, which translates to higher production costs and higher market value.
PROCESSING / DEHULLING EQUIPMENT

Dehulling – The process of removing hulls from the field run

- Types of dehulling equipment
  - Oat dehuller
  - Codema dehuller
GRAIN CLEANING EQUIPMENT

Cleaning – process of separating waste from finished product

Waste includes:
- Brokens
- Foreign matter (weed seeds, rocks)
- Hulls
MILLING PROCESS

Stone Mill
used for whole flour

Hammer Mill
used for whole flour

Roll Stands
grinds white flour
Sifter – separates flour as released from the kernel

Bran dusters

Entolater – kills insects and larva

Vacuum packing machine for kernels, overpacked with CO2
PACKAGING LABELING SHIPMENT
OVERVIEW
QUESTIONS?