Current barriers to adoption of genetic selection technology in the Ontario sheep industry

Delma Kennedy
Sheep Specialist, OMAFRA
What is genetic selection technology?

- Choosing animals for the next generation that will perform better
What is required?

**Pedigree Data Collection**
- Unique “permanent” ID
- Sire
- Dam
- Birth date

**Trait Data Collection**
- Birth type
- Birth weight
- Lamb survival
- Weaning weight
- Post weaning weight
- Ultrasound muscle depth
- Ultrasound fat depth
New Technology

- Genomics
- More information on traits
  - Mature weight
  - Lamb vigour
  - Lambing ease
  - Ewe longevity
  - Udder score
  - Scrotal circumference
  - Parasite resistance – FEC, BCS, FAMACHA
  - Carcass weight
Barriers to Adoption

• **Time**
  - Physically run out of time to add items to the to do list
  - Most sheep farmers have an off farm job
What are the competing interests?

- **Feeding**
  - Ewe rations, lamb rations
  - Pasture – still need to move sheep and fences, water, mineral
  - Mixing feed, hay and feed production

- **Sheep management**
  - Drenching, vaccinating, shearing, lambing, baby lamb survival, bedding…. 

- **Other**
  - Predation management, cast sheep, sheep in trouble, escaping etc
Barriers to Adoption

- **Cost**
  - Equipment
    - Weigh scale + smart scale head
    - Electronic data recording
    - Electronic tag readers
  - Software
    - So reader can talk to scale head
    - So reader can talk to computer/management software
    - Management software must export correct data for GenOvis
Barriers to Adoption

• Technology
  – Market size
  – ~8,000 farms CA
  – Is it compatible?
  – Software
  – Cost?

• Technology setup/failure
  – Time, expertise…
Walkover Weighing

Can the sheep record the data themselves?

Cell Phone

Tag Reader

Store or download animal info

Lambing Info

Uplaod info to Genetic Recording

Collect weights from Scale

Low price point needed