Records

Information Sources
If You Can’t Measure It, You Can’t Manage It
- Research
- Nutrition Consultant
- Technical Rep
- Vet
- Neighbor
- Extension Agent
- Magazines
- Internet
- Financial
- Radio/TV
- DHI

How are Records and Info Used
- Daily operation decisions
- Identification of problems
- Measure progress
- Evaluate enterprise
- Financial status
- Genetic Evaluation
- Plan for future

Record Providers
- Notebook
  - Loss, ability to sort/summarize info
- Dairy Herd Improvement (DHI)
- Software manufactures
  - Different computer based record systems
  - Dairy Champ, Dairy Comp 305, Dairyman, Dairy Quest, DHI Plus, Herd Pro, PC DART, CTAP

On-Farm Use of Computers

<table>
<thead>
<tr>
<th></th>
<th>Computer Use</th>
<th>Internet Use</th>
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<tbody>
<tr>
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<tr>
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<td>South</td>
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<tr>
<td>West</td>
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<td>69</td>
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<tr>
<td>US</td>
<td>47</td>
<td>53</td>
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</tbody>
</table>

National DHIA
- Owned by producers
- Originated in 1905, became known as National DHIA in 1965
- Organization has changed from Estimating Performance to Management Information
Cows by Processing Center

<table>
<thead>
<tr>
<th>Center</th>
<th>Cows</th>
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<tbody>
<tr>
<td>DRPC</td>
<td>4,282,206</td>
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<tr>
<td>DRMS (NC)</td>
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<td>Agri-Tech (CA)</td>
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<td>DHI-Provo (UT)</td>
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<td>AgSource (WI)</td>
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<td>PA DHI</td>
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<td>Texas DHI</td>
<td>4,269</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>4,282,206</strong></td>
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Flow of Information

DHI Services

- Production measurement
- Component analysis
- Mastitis screening
- Milk urea nitrogen
- Forage and soil testing
- Computer software

Changes in Dairy Records

- More emphasis on management information and less on “official records”
- Emphasis on low cost
- Computers
- Competition
- More on-farm

How to Measure Milk Production

- Rolling Herd Average
- Test Day Production
- Peak Milk
- Summit Milk
- 305 Day Mature Equivalent (ME)
### Annual Average Milk Production
- Total yearly production/total cow years
- No adjustments for age, stage of lactation, # of dry cows, length of dry period
- How to change?
  - More milk per cow
  - Reduce calving interval
  - Cull heavily
- Problems/limitations
  - lag time/insensitive to current changes

### Test Day Production
- All Cows
  - total milk/total cows
  - includes dry cows
- Milking Cows
  - total milk/milking cows
- Problems/limitations
  - days in milk variable
  - # of 1st, 2nd, and 3+ lactation cows in herd

### Peak Milk
- Highest production before 90 days in milk (DIM)
- Cows peak 6 to 8 wks
- Highly correlated with lactation yield
- For every additional pound at peak = 250 lbs of milk
- Indicator of dry and fresh cow management

### Summit Milk
- Average of two highest of first three test days production
- Will be lower than peak, but may be a better measure
- Low and/or early peaks can be a sign of inadequate nutrition

### Peak/Summit Milk
- Indicator of body condition at calving, feeding program and general health
- 1st lactation - 75% of older cows
- 2nd lactation - within 5 - 10 lbs of older cows
- Low peaks
  - body condition at calving
  - dry/transition cow management
  - heifer management

### 305 Day ME
- Adjustments
  - frequency of milking - 3x increases milk by 10 to 20%
  - lactation length
  - age - maturity (Hol = 83 mo, Jersey = 79 mo)
  - season
  - location
- Allows comparison of 1st lactation animals to older animals
Observations from DHI Sheet

- **% DIM (Days in Milk)**
  - Should be around 87%
- **Milk Yield**
  - should increase with age, but days in milk of each lactation group can influence this
- **% Fat & % Protein**
  - For Holsteins should be > 3.6 Fat & > 3.2 Protein

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Observations from DHI Sheet

- **AVG DIM - average days in milk**
  - should be 150 for a herd with equal distribution of calving throughout the year and 12 mo calving interval (CI). If CI around 14 mo, DIM may reach 180 or more days
  - should be 165 for herd with 13 mo CI

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Observations from DHI Sheet

- **Somatic Cell Summary**
  - % L - % of cows <= 4, should be >80%
  - Avg L2 - average lactation linear SCS, should be < 4
  - Avg SCC - average somatic cell score, should be < 200,000

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Observations from DHI Sheet

- **Culling**
  - avg cull rate about 30%
  - keep involuntary culls below 15%, this is everything but low production and dairy culls
- **Calving interval**
  - should be 12-13 mo
- **Avg days open**
  - should be <115

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Observations from DHI Sheet

- **Days at 1st breed = days to 1st service**
  - should be about 75
- **Serv/conc = service per conception**
  - should be <2.0
- **Days Dry**
  - would like most of the cows to be 60 days dry
- **PTA’s for cows, sires, and service sires**
  - should decrease with lactations (1st>2nd>3rd)