Recordkeeping

For Beekeepers

Presented by: Eric Krouse

April 23, 2016
Before We Start

HOUSEKEEPING

Not necessary to take notes
- Entire presentation is available online
- Template of forms discussed also online

[Website Link]

www.EricsHoneyFarm.com
The “Secret” to Recordkeeping

BASICS

The Secret to Recordkeeping is…
...No Secret at all
Just write stuff down!

- Simple
- OR -
- Complex & Time Consuming
- Tailor For Your Needs
Am I Over The Top?

What I do and Why I do it:
- Tremendous amount of Recordkeeping
- Very time consuming in field and back at home
- It's a business (IRS records)
- Make Queens by grafting best genetics which include:
  - Survival through Northern Winters
  - Queen longevity (years)
  - Honey Production
  - Lack of Aggressiveness (gentleness)
  - Disease /parasite resistance (chemical-free)
Why Keep Records?

GOAL / PURPOSE

"Permanent" record of events:
  - brick placement on hives is not permanent record of events.

Limits of Human memory:
  - forget things.
  - remember things that never happened.

Legal / Regulatory Requirements:
  - IRS (income taxes)
  - State Dept of Taxation (sales tax on honey, nucs, wax)
  - US Dept of Agriculture (crop loss programs)
  - State Health Dept (honey extraction, bottling, 3rd party sales, flavored honey - depending on state)
  - FDA (cosmetics: creams, lip gloss, health claims).
Why Keep Records?

GOAL / PURPOSE [continued]

Reason #1- Become a Better Beekeeper:
- Modify practices
- Anticipate Timing of hive management activities
Many Different Needs

RECORD TYPES

Business records:
- Financial: Income, Sales taxes, expenses (purchase receipts, vehicle mileage)
- Contractual: Pollination agreements, hive locations

Lists:
- Customer lists
- Supplier lists
- Equipment list (# supers, frames, foundation)
- Marketing Events (what to bring to Farmer's markets, presentations / speaking engagements, etc)
- Field work (what to bring to when you work the bees).

Honey Production:
- Honey per hive
- Overall honey production
Many Different Needs

RECORD TYPES [continued]

Winter Survival Rates:
- # hives going into winter (by strength)
- # surviving hives
- # nucs beginning and ending

Tracking Activities by Hive:
- Numbering hives to correspond to log (letters first year, numbers thereafter)
- date hive last worked
- requeened
- strength of hive
- status going into winter
- equipment on hive
- honey harvested / feed given
- If it died and when
Many Different Needs

RECORD TYPES  [continued]

Specialized activities:
- Pollination Services
- Queen Rearing
- Nuc production
- Unique to your situation
What Should I Use?

**TOOLS**

Paper and pen / pencil

General computer programs:
- Word, Excel, Google docs, etc

Dedicated Computer programs:
- QuickBooks (financial bookkeeping & inventory management)

Specialized Computer Programs:
- Hive Tracks (hivetracks.com) - $12/yr per hive ($60 unlimited)
- Beetight (beetight.com) - free up to 6 hives / $15 per year >6 hives
What Should I Use?

**TOOLS [continued]**

Apps (for Smart Phones):
- Apiary Book (Creative Software Grup)
- Bee Hive Tracker (3Pink)

Things to Consider with computer programs:
- Free today, $$$ tomorrow
- Will they go out of business (how will you get your records)?
- Simplicity

What to Use in the Field:
- Paper and pen / pencil
- Sticky honey / propolis on electronics
Becoming A Better Beekeeper
By Keeping Better Records

FOCUS ON IMPROVED BEEKEEPING

General activities and observations:
  - Word - diary style

Specific activities by hive:
  - Excel spreadsheet - list style

Honey Production:
  - Excel spreadsheet - list style, calculations

Winter Survival Rates:
  - Excel spreadsheet - list style, calculations
What’s Happened Last Year?

FOCUS ON IMPROVED BEEKEEPING [cont’d]

General activities and observations:
- Word (diary style)
- Temperature & Weather Observations
- Plants in bloom
- General Beekeeping Activities (making splits, harvesting honey, Supplemental feeding, Winter preparations)

<table>
<thead>
<tr>
<th>Date</th>
<th>Category</th>
<th>Description</th>
<th>Weather</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016.04.05</td>
<td>Observed</td>
<td>First two weeks of April as much as 20° below average (including record low of 9° on 4/5/2016).</td>
<td>Mid-50°s/low 30°s</td>
</tr>
<tr>
<td>2016.03.30</td>
<td>Observed</td>
<td>March was on average 10° above average. Maple trees blooming.</td>
<td>60°s/30°s</td>
</tr>
<tr>
<td>2016.03.27</td>
<td>Observed</td>
<td>Warmer than historic average. Bees still bringing in pollen. Reported that lots of bees in the corn bins at the farm on warm days (enough to keep the calves from feeding)! Fruit tree buds in Syracuse swollen. Turning colder, below average next couple of weeks.</td>
<td>Mid-50°s/low 30°s</td>
</tr>
<tr>
<td>2016.03.27</td>
<td>Management</td>
<td>Unwrapped all hives on Jerome. Dealt with 4 hives. Marked 3 last year queens, couldn’t find the other. Gave frames of pollen to 2 weak hives.</td>
<td>64°/29°</td>
</tr>
<tr>
<td>2016.03.12</td>
<td>Management</td>
<td>Unwrapped all 3 hives at Rd#2 yard. Bees already bringing in light tan pollen. More than a super of honey left on each hive. Saw all queens marked in blue (last year’s color). Reversed boxes. Leveled hive stands.</td>
<td>59°/28°</td>
</tr>
<tr>
<td>2016.02.28</td>
<td>Observed</td>
<td>Warm day. High 55° and sunny. Very little snow remaining. Past week was about 5° warmer than average. Overall January &amp; February were on par with historic averages.</td>
<td>55°/38°</td>
</tr>
<tr>
<td>2016.02.20</td>
<td>Management</td>
<td>Checked all hives due to warm weather. Hive#6 dead from Laying Worker. All hives actively consuming sugar with about 1/2 box gone on average (about 7lb)</td>
<td>52°/36°</td>
</tr>
</tbody>
</table>
**How Did Each Hive Do?**

**FOCUS ON IMPROVED BEEKEEPING [cont’d]**

Specific activities by hive:

<table>
<thead>
<tr>
<th>Date</th>
<th>Action Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/30/15</td>
<td>Finishing Top two boxes, Added second super, Box 4 (super) still empty</td>
</tr>
<tr>
<td>9/5/15</td>
<td>Working top 2 boxes, Top 1/2 full, Took 12# honey, Needs another box.</td>
</tr>
<tr>
<td>9/9/15</td>
<td>Laying workers, Laid mass eggs above QX, Gave frame larvae from HiveC.</td>
</tr>
<tr>
<td>9/13/15</td>
<td>Boxes 4 &amp; 5 half full, Bees coming out of bottom board from back of hive, Took 60# honey.</td>
</tr>
<tr>
<td>9/26/15</td>
<td>No hole in Bottom board, Partially robbed, Reduced entrance, Box 4 partially full for winter.</td>
</tr>
<tr>
<td>10/4/15</td>
<td>Check for Eggs, Likely need to combine</td>
</tr>
<tr>
<td>TO DO</td>
<td>Harvest Top 2 Boxes</td>
</tr>
</tbody>
</table>

- Excel spreadsheet (list style)
- Hive Manipulation
- Overall Strength
- Brood expansion
- Honey estimate
- Honey Harvested
- Equipment in Use
- Temperament
- Queen Marking
- Follow-up Tasks
Was It Worth The Effort?

FOCUS ON IMPROVED BEEKEEPING [cont’d]

Honey Production:
- Excel spreadsheet (list style, Calculations)
- How much harvested and when
- Less: any honey given
- Estimate based on average weight per frame or box

<table>
<thead>
<tr>
<th>Date</th>
<th>Harvested</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/1/15</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>5/16/15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6/1/15</td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>6/2/15</td>
<td>-12</td>
<td>12</td>
</tr>
<tr>
<td>6/3/15</td>
<td>12</td>
<td>55</td>
</tr>
<tr>
<td>6/4/15</td>
<td>-10</td>
<td>-10</td>
</tr>
<tr>
<td>6/5/15</td>
<td>-4</td>
<td>30</td>
</tr>
<tr>
<td>6/6/15</td>
<td>12</td>
<td>45</td>
</tr>
<tr>
<td>6/7/15</td>
<td>-4</td>
<td>10</td>
</tr>
<tr>
<td>6/8/15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6/9/15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6/10/15</td>
<td>65</td>
<td>50</td>
</tr>
<tr>
<td>6/11/15</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>6/12/15</td>
<td>63</td>
<td>30</td>
</tr>
<tr>
<td>6/13/15</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>6/14/15</td>
<td>13</td>
<td>40</td>
</tr>
<tr>
<td>6/15/15</td>
<td>14</td>
<td>30</td>
</tr>
<tr>
<td>6/16/15</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td></td>
<td>519</td>
</tr>
</tbody>
</table>

April 23, 2016
Here We Go Again!

FOCUS ON IMPROVED BEEKEEPING [cont’d]

Winter Survival Rates:
- Excel spreadsheet (list style, Calculations)
- Weight entering winter
- Winter survivor or date died

<table>
<thead>
<tr>
<th>Hive #</th>
<th>Created</th>
<th>Location</th>
<th>#boxes</th>
<th>9/28</th>
<th>11/13</th>
<th>2/22</th>
<th>2/28</th>
<th>3/13</th>
<th>2/1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prior Yr</td>
<td>Heavy</td>
<td>#2 Rd</td>
<td>3</td>
<td>11/23</td>
<td>alive</td>
<td>Sgr bd+pattie</td>
<td>alive</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Prior Yr</td>
<td>Heavy</td>
<td>Jerome</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Prior Yr</td>
<td>Heavy</td>
<td>Jerome</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Prior Yr</td>
<td>Heavy</td>
<td>Jerome</td>
<td>3</td>
<td>+sugar bd</td>
<td>alive</td>
<td>Sgr bd+pattie</td>
<td>alive</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Prior Yr</td>
<td>Heavy</td>
<td>Jerome</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Prior Yr</td>
<td>Heavy</td>
<td>Jerome</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Prior Yr</td>
<td>Heavy</td>
<td>Jerome</td>
<td>3</td>
<td>+sugar bd</td>
<td>alive</td>
<td>Sgr bd+pattie</td>
<td>alive</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Prior Yr</td>
<td>Heavy</td>
<td>Jerome</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Prior Yr</td>
<td>Heavy</td>
<td>Jerome</td>
<td>3</td>
<td>+sugar bd</td>
<td>alive</td>
<td>Sgr bd+pattie</td>
<td>alive</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>06/29/14</td>
<td>Medium</td>
<td>Jerome</td>
<td>2</td>
<td>+sugar bd</td>
<td>alive</td>
<td>+pol/hony</td>
<td>alive</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>06/20/14</td>
<td>Lite</td>
<td>Jerome</td>
<td>1</td>
<td>+sugar bd</td>
<td>DEAD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>07/04/14</td>
<td>Lite</td>
<td>Jerome</td>
<td>1</td>
<td>+sugar bd</td>
<td>DEAD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>06/20/14</td>
<td>Medium</td>
<td>Jerome</td>
<td>2</td>
<td>+sugar bd</td>
<td>alive</td>
<td>+pol/hony</td>
<td>alive</td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>06/20/14</td>
<td>Medium</td>
<td>Jerome</td>
<td>3</td>
<td>+sugar bd</td>
<td>alive</td>
<td>+pol/hony</td>
<td>alive</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>06/20/14</td>
<td>Lite</td>
<td>Jerome</td>
<td>2</td>
<td>+sugar bd</td>
<td>alive</td>
<td>+pol/hony</td>
<td>alive</td>
<td></td>
</tr>
</tbody>
</table>

Winter Survival Rates:
- Heavy: 2014 6 2 7, 2013 5 2 6, 2012 1 0 1
- Survival %: 2014 83%, 2013 100%, 2012 86%
- Medium: 2014 7 10 0, 2013 5 6 0, 2012 2 4 0
- Survival %: 2014 71%, 2013 60%
- Weak (lite & feather): 2014 12 9 4, 2013 2 2 2
- Survival %: 2014 17%, 2013 22%
- Survival %: 2014 48%, 2013 48%, 2012 73%
Now You Know “Secret” to Better Beekeeping

SUMMARY

- Keep Bees -
  - Keep Records -
  - Keep It Simple -
Thank You