Hop Harvesters
What’s Out There?

December 7, 2013
Morrisville, NY
Chris Callahan
UVM Extension Ag Engineering

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Mechanized Harvesting

- Economics
  - Capital cost
  - Labor savings

- Quality
  - Harvest timing and duration

- Logistics
  - “Feeding the machine”
  - Will need more drying capacity

- Net Yield
Harvester Characteristics

- Cost
  - material, labor, assembly, retrofit, recurring
- Capacity (bines/hr)
- Crew
- Power source
- Portable vs. Stationary
- Effectiveness
The Crafty Hop Plucker

- $5,000
- 30-60 bines per hour
- 1 person crew
- Electric power
- Stripping only
Bine Implement 3060

- $14,000
- 20-40 bines per hour average
- Up to 50 bines per hour
- 1-3 people to operate
- Electric power
- Strips and sorts

www.bineimplement.com
sales@bineimplement.com

Revised 3/18/2014
with input from Bine Implement.
Steenland Mobile Structures - Hop Harvester 1000 (Roxbury, NY)
Steenland Mobile Structures

- $12,000 (est.)
- 120 bines/hour (est.)
- 1 person to operate
- Portable
- Electric power
- Strips and sorts
- Rubber fingers
  - Anticipate less cone damage

Steve Steenland
steve@steenlandmobilestructures.com
www.steenlandmobilestructures.com
607-326-7707
LaGasse Hop Harvester

- Price is TBD
- 150-200 bines/hour (est)
- 2 person crew
- Will strip and sort
- Gasoline powered hydraulics

Dan LaGasse & Jason McCormik
LaGasse Works, Inc.
315-946-9202
UVM Mobile Hop Harvester
UVM Mobile Hop Harvester

- Open source design
- $9,500 - 30,000
- 60 - 170 bines per hour
- 2 – 4 person crew
- Hydraulic power (tractor PTO)
- Strips and sorts
- Auto feed

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Google “UVM Hops Wiki”
Wolf Harvesters

- $30,000 – $45,000
- WHE140: 120-140 bines/hr
- WHE170: up to 170 bines/hr
- 1-8 person crews
- 3 Phase electrical power
- Strips and sorts (and can chop bines)
- Auto feed

Tom Frazer
Dauenhauer Mfg, Co.
707-546-0577
tfrazer@dmfg.com
www.dmfg.com
<table>
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<tr>
<th>Option</th>
<th>Initial Cost</th>
<th>Crew</th>
<th>Bine/Hour</th>
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<tr>
<td>Crafty Hop Plucker</td>
<td>$5,000</td>
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<td>30-60</td>
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<tr>
<td>Bine 3060</td>
<td>$14,250</td>
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<tr>
<td>Steenland Hop Harvester 1000</td>
<td>$12,000</td>
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<td>120</td>
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<td>150-200 (est.)</td>
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<tr>
<td>UVM Mobile</td>
<td>$9,500-$30,000</td>
<td>4</td>
<td>60-120</td>
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<td>(UVM and others replicating</td>
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<tr>
<td>Dean Heltemes, Todd Wycoff, Pat Comerford</td>
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<tr>
<td>Wolf WHE140</td>
<td>$30,000 + labor</td>
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<td>Wolf WHE170</td>
<td>$30,000 + 2 weeks labor</td>
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<td>Wolf WHE170</td>
<td>$43,500 complete</td>
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Videos

- **Crafty Hop Plucker**
- **Bine Implement 3060**
- **UVM Mobile Hops Harvester**
- **Lunatic Fringe (UVM type)**
- **Wolf 140 (NEHA)** - bines
- **Wolf 140 (NEHA)** – cones
- **Wolf** – side by side
Remote Data Monitoring – 1st Install at Pete’s Greens

As an engineer, I love data. I turn over farmera do also. At least, Pete Johnson and Isaac Jacobs at Pete’s Greens in Craftsbury, VT do. “Is it working yet?” Isaac asks as I put the finishing touches on the remote data monitoring system we have been installing in the four zone drive-in cooler. Just about… I think I say with trepidation. Isaac has been up and down in a cooler lift several times at plucking and removing a sensor that was being difficult.

And I’ve been wrestling with a data station to make it communicate over the wireless network so that we can actually see the data being collected by the new remote monitoring system.

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