Can We Share?
Equipment Sharing Strategies for Small-scale Farmers

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Scaling up your production?

\[ \text{TIME} = \$ \]

- $ Larger equipment
- $$ Increase Labor
Why share?

- Reduced machinery costs
  - Sharing can make machinery ownership economical
- Opportunity for custom work
- Volume discounts on input purchases
- Two (or more) heads are better than one! – access to specialized skills, knowledge
What to share

• Types of machinery
  – Timeliness and frequency of use
• Machinery Fixed Costs
• Machinery Variable Costs
  – Labor
  – Materials
• Transportation
• Expertise
### A Wide Range of Sharing Arrangements

<table>
<thead>
<tr>
<th>Arrangement</th>
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<tbody>
<tr>
<td>Single Machine No Labor</td>
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<tr>
<td>Single Machine and Labor</td>
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<tr>
<td>Multiple Machines and Labor</td>
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<tr>
<td>Multiple Machines, Labor and Inputs</td>
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<tr>
<td>Multiple Machines, Labor, Inputs and Production</td>
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How to share

• Alternative arrangements
  – Individual ownership with sharing agreement
  – Joint ownership
  – Business Entity (LLP, Cooperative, etc.)
How to Share

• Operating Agreement considerations
  – Scheduling of use
  – Qualified operators
  – Allocation of costs
    • Initial purchase
    • Repairs, maintenance, insurance, storage
  • Use
    – Transportation
    – Entry/exit
With Whom to Share

• Finding and choosing partners
  – Similarity versus Complementarity
    • Farm characteristics
    • Unique skills
    • Work habits
    • Personality traits
Current Leopold Center funded project

Expectations of growers
- Share equipment
- Write operating agreement
- Track time
- Track finances
- Share lessons & insights

<table>
<thead>
<tr>
<th>Group</th>
<th>Location</th>
<th># of Members</th>
<th>Equipment Shared</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Central Iowa</td>
<td>3</td>
<td>Mulch Remover</td>
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<tr>
<td></td>
<td>Southeast Iowa</td>
<td>3</td>
<td>Crop Lifter, Multi-Purpose Tool Bar</td>
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<tr>
<td>2</td>
<td>Iowa</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Southwest Iowa</td>
<td>8</td>
<td>Aronia Berry Harvester</td>
</tr>
<tr>
<td>4</td>
<td>East Central Iowa</td>
<td>2</td>
<td>Mulch Layer</td>
</tr>
<tr>
<td>5</td>
<td>Northeast Iowa</td>
<td>3</td>
<td>Eco Weeder</td>
</tr>
<tr>
<td>6</td>
<td>East Central</td>
<td>5</td>
<td>Garlic Clove Separator</td>
</tr>
</tbody>
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Sharing a Multi-Purpose Toolbar

You raise fruits and vegetables on 1.5 acres to sell at a local farmer’s market and supply a 50 member CSA. You are a young, beginning farmer with little money to invest in machinery, but so have a small tractor and realize that you could be more efficient if you had access to some basic implements such as an under-cutter, disc hiller and cultivating tools. You’ve decided to look at the possibility of sharing with other growers.
Multi-Purpose Toolbar

- 3 Women: Ages 30 to 56
- Total acres in vegetable production: 2+ acre
- Approximate distance between farms: 25 miles
- Off-farm employment: one farmer works part-time in the winter months, one works full-time year round and one assists husband on a traditional grain farm
- Equipment purchased: Under-cutter with toolbar & attachments
  - 2 purchased, 1 has optioned to buy in or rent
Beyond Equipment Sharing…..

• Multi-farm CSA
  – Organic
  – 50 members
  – Coordinate plantings
    • Comparative advantage, plant what grows best on own farm (bidding process)
    • ↓ risk (at least two farmers plant same crop)
  – Specialize in tasks
    • Marketing/newsletter
    • Bookkeeping
    • Crop planning
**Sharing an ECO-1 WEEDER**

You have five acres in vegetable production. You are in your mid-50s and have an off-farm job. Weed control is major challenge, but you don’t feel you can justify purchasing a mechanical weeder on your own. You’ve decided to look at the possibility of sharing an Eco-Weeder with other growers.
ECO-1 Weeder

• 3 men: Ages 59-70
• Total acres in vegetable production: 10 acres
• Approximate distance between farms: 20-25 miles
• Off-farm employment: one farmer works part-time in the winter months, one works full-time year round and one is a full-time farmer with livestock
• Equipment purchased: ECO 1 Weeder
• Each paid 1/3 of the initial purchase cost
“Having fewer people sharing it gives us more flexibility on when we can get the machine, It wouldn’t work as efficiently with more people or larger farms.”
Sharing a JOANNA 3 Aronia Harvester

You have three acres in aronia berries, now mature and producing roughly 12,000 lbs per acre. You estimate you would need to hire nearly 35 people to hand harvest for at least 2 weeks in order to harvest all your berries. You realize that you need a mechanical harvester, but this is an expensive piece of equipment and you don’t have the cash to purchase it on your own. You’ve decided to look at the possibility of sharing with other growers.
JOANNA 3 Aronia Harvester

- 8 growers within a 50 mile radius from a centrally-located farm
- 40 total acres when all plantings are in full production, 1 to 7 acres/farm

In 2012, only 3 of 8 growers had bushes in production. Additional plantings are planned for 2014.
Resources

• Ag Decision Maker website
  – http://www.extension.iastate.edu/agdm/

Questions?

• Contact us:
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