Composting Equipment and Case Studies

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Equipment and Equipment Costs

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Equipment and Equipment Costs

3.5 ft row height
6.5 ft row width
20-40 hp tractor with hydrostatic

Approx. $16,000 new
Equipment and Equipment Costs

4.5 to 7.5 ft row height
10 to 16 ft row width

80 to 180 PTO hp tractor with creeper gear, IVT or hydrostatic transmission

Used: $12,000 – 20,000
New: $40,000 – 200,000
Self-powered composters

6 ft row height
16 ft row width
275 hp engine

New: $16,000
Used: $65000
Equipment and Equipment Costs

Water tanks

New $5000 to 12,000
Equipment and Equipment Costs

Screen: $80,000
Bagger: $50,000
Equipment and Equipment Costs

• “If you really want to apply compost on your farm, then you need good equipment.”
Equipment and Equipment Costs

• “If you really want to apply compost on your farm, then you need good equipment.”

• “There is no perfect machine.”
Case Study: Farm A – 2000 acres

- Buys manure
- Corn-Soybean-Specialty Crop-Cereal Grains.
- Applies 8 tons compost/acre in a NT system with cover cropping
Case Study: Farm A – 2000 acres

• Buys manure
• Corn-Soybean-Specialty Crop-Cereal Grains.
• Applies 8 tons compost/acre
• Reduced fertilizer expenses by more than 50%
• Increasing soil organic matter
Case Study: Farm B – 2000 acres

- Uses manure from his own herd and feedlot
- Corn-Soybean-wheat.
- Applies 15 tons compost/acre in a NT system with cover cropping
Case Study: Farm B – 2000 acres

- Uses manure from his own herd and feedlot
- Corn-Soybean-Wheat.
- Applies 15 tons compost/acre in a NT system with cover cropping
- Reduced transport from 200 loads to 80 loads (10 miles)
- Increasing soil organic matter
Conclusion

“As a livestock producer, I am having to deal with manure already. Composting is an opportunity to make it go further, to make better use of my resources.”
Conclusion

▪ “As a livestock producer, I am having to deal with manure already. Composting is an opportunity to make it go further, to make better use of my resources.”

▪ “Regardless of whether you are applying manure or compost, there will be management challenges. Which would you rather deal with?”
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Conclusion

▪ “Regardless of whether you are applying manure or compost, there will be management challenges. Which would you rather deal with?”

▪ “If the cost of producing and applying compost is less than the cost of an equivalent amount of chemical fertilizer, then the decision is a no brainer.”
Conclusion

“Find a niche. Do something no one else is doing. This may be a way to increase income without expanding acres.”
Conclusion

▪ “Find a niche. Do something no one else is doing. This may be a way to increase income without expanding acres.”

▪ “Make decisions on a farm by farm basis.”
Conclusion

- “Flexibility is required because every year is different.”
Conclusion

▪ “Flexibility is required because every year is different.”

▪ “Be prepared to put time into it.”
### FIGURE 4. Feed Lot Case Study: Cost of Compost

<table>
<thead>
<tr>
<th>Category</th>
<th>On-Farm Manure Application</th>
<th>On-Farm Compost Application</th>
<th>Bulk Compost Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning confined areas</td>
<td>$1.14</td>
<td>$3.79</td>
<td>$5.47/yd</td>
</tr>
<tr>
<td>Monitoring and turning piles</td>
<td>$0.91</td>
<td>$1.68</td>
<td>$3.79</td>
</tr>
<tr>
<td>Field application</td>
<td>$1.68</td>
<td>$1.68</td>
<td>$1.68</td>
</tr>
</tbody>
</table>

Costs in $/yd
Thank you!