Mortality Management
In-Vessel Composting

Challenges and Opportunities
What’s the Big Deal?

Less Labor?
Less Management?
Less Cost?
Less Smell?
Just Something New?
Types of In-Vessel Units
## Costs

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>16 – 22 K</td>
</tr>
<tr>
<td>Variable</td>
<td>14 – 20 K</td>
</tr>
<tr>
<td>Variable</td>
<td>20K +</td>
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</tbody>
</table>
Approved Cost Share
for
In-Vessel Composters

Louisiana.....

Mississippi....

Alabama.....

Texas.....
USDA Cost Share
(Louisiana)

Conventional “Bin Type” for 6 House Broiler Operation
(42’ X 500’ house with 28,000 birds placed per house and fed to 7 lbs)

Size Requirements

Producer pays $6200

Estimated Cost …$24,600

Cost Share at %75 … $18,400
USDA Cost Share
(Louisiana)

In-Vessel Composter for 4 House Broiler Operation
(42’ X 500’ house with 28,000 birds placed per house 56 days old at 7 lb)

Size Requirements ...

Producer pays ... $8600

Estimated Cost ... $27,000

Cost Share ... $18,400
LSU AgCenter Compost Trial

Compost King

Hill Farm Research Station
*Followed stringent procedure with no deviation.

Five House Broiler Farm
*Followed “react to situation” procedure.

- Reached Favorable Temps
- Composted Large Bones
- Killed Pathogens
Produce during his first flock.
What does this tell us?

In-Vessel units do require a certain amount of management.

**BUT**

- Required less time to dispose of mortality.
- Had no problem with predators.
- Required less labor.
- Created less odor.
- Hired labor managed the unit without a problem.
- No tractor needed after initial starting of unit.
## Labor and Management

<table>
<thead>
<tr>
<th>In-Vessel</th>
<th>Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loading ease…</td>
<td>★</td>
</tr>
<tr>
<td>Starting ease…</td>
<td>★ ★</td>
</tr>
<tr>
<td>Adding material…</td>
<td>★</td>
</tr>
<tr>
<td>Monitoring ease…</td>
<td>★</td>
</tr>
<tr>
<td>Turn…</td>
<td>★</td>
</tr>
<tr>
<td>Adjust mix…</td>
<td>★</td>
</tr>
<tr>
<td>Unload…</td>
<td>★★</td>
</tr>
</tbody>
</table>
Advantages......

1. Fewer predators...bio-security
2. Less smell...better neighbor relations.
5. Composted material to be utilized.
Problems

Cost ....

1. Lack of replicated research...

2. Requires extra space for curing of product in cases of short out times ....

3. NRCS allowance for cost sharing....

4. Uncertainty .....
Which out weighs the other?
Findings from producers.....

Note: Of those producers who have struggled with proper mortality disposal, approximately 70% have indicated that they would utilize an in-vessel system if it was affordable and they were provided with educational materials and programming regarding management.
**Challenges**

* Lower the initial costs.....

* Raise NRCS cost share amounts....

* Conduct more replicated research on units.....

* Create an “If ....Then...” educational programming effort to educate producers how to react to situations....
Let’s Work Together for water quality.....

Thank you