Example 1—Broiler Farm

- The farm consists of 205 acres.
- Two broiler houses will raise 6 flocks per year.
- Each flock will consist of 25,000 birds.
- Average weight per bird will be 3 lbs.
- Days in confinement = 48 days.
- Within one year there will be a total of 11 weeks were there are no birds. This occurs between shipping and receiving new flocks.
- The producer plans to use an adjacent farm, not owned, to apply the litter.
- Soil Test Phosphorus is 200 lbs.
- There will be no cake removal.
- Barns will be cleaned out once per year in spring.
- Mortalities will be composted.
- Assume the producer will raise 200 bushels of corn per acre.
  - Assume they will surface apply and not incorporate.
  - How many acres will they need if they use an N-based rate?
  - How many acres will they need if they use a P-based rate?
Step 1) there are two houses that raise six flocks per year, each flock has 25,000 birds. 2 (houses) X 6 (flocks) =12 flocks. 12 (flocks) x 25,000 (birds per flock) = 300,000 birds per year. When determining the amount of manure each flock had a cycle of 48 days.

Another way to look at it

Step 1) there are two houses that hold 25,000 birds each (50,000 total). There are six cycles that last 48 days each. 6 (cycles) x 48 (days) = 288 days.  

Either way you enter step 1, it will come to 817 tons.
Remember this is just a tool, farmers cannot apply manure to a decimal point. So when determining the application rate use whole numbers. By using this application rate of 4 tons to the acres we are over applying on Phosphorous, which is fine but not the best utilization of the manure.
## SOLIDS WORKSHEET 3 - APPLICATION RATES AND LAND REQUIREMENTS

<table>
<thead>
<tr>
<th>Field No.</th>
<th>Acres</th>
<th>Soil Test Phosphorus (STP)</th>
<th>Crop Rotation / Sequence</th>
<th>Planned Application Date or Timing</th>
<th>Planned Application Rate² (tons/ac)</th>
<th>Solid or Commercial Fertilizer (S or C)</th>
<th>Actual Application Date</th>
<th>Actual Application Rate² (tons/ac)</th>
<th>Weather at Time of Application* (Cloudy, Raining, Sunny)</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>205</td>
<td>200</td>
<td>Corn Grain (Bushel)</td>
<td>Spring 2016</td>
<td>4</td>
<td></td>
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<td>24 Hours Before 24 Hours After</td>
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</table>

1. Where land application is occurring under long term lease or agreement with adjacent landowner, fields must be included in the above table.
2. Fields that have a ‘High’ soil test phosphorus (>400) should implement Best Management Practices (BMPs) to reduce the risk of nutrient movement to sensitive waterbodies. BMPs may include, but not be limited to: installing conservation buffers, reducing P2O5 application rate, incorporating manure, adding chemical treatments to litter that tie up soluble P and keep it from moving over the landscape, and/or adjusting application timing.
3. It is illegal to make land applications when the ground is frozen. It is recommended that land applications are not made within 48 hours of forecasted precipitation.