Using Animal Manures in the Vegetable Garden

There are many benefits to using organic matter in the garden. It improves the soil’s ability to hold water and nutrients, provides slow-release nutrients to plants, and increases soil microbial “life”. And since many of us have access to free organic matter in the form of animal manure, it only seems fitting to use it in our vegetable gardens.

However, raw animal manure can contain some nasty human pathogens and therefore care should be taken by following the National Organic Production 90/120 Day Rule.

- If manure does not touch edible portions, apply 90 days in advance of harvest.
- If manure does touch edible portions, apply 120 days in advance of harvest.

Of course, it’s always safer to completely compost your animal manure before adding it to the vegetable garden.

Tilling the Soil:
- Destroys soil structure
- Creates hardpan
- Oxidizes organic matter
- Kills organisms, especially those that contribute to soil organic matter
- Facilitates weed establishment

Turning the Soil:
- Conserves soil biodiversity, soil structure, and soil organic matter
- Prevents hardpan
- Conserves soil moisture

Garden Soil Management: Tilling vs. Turning

Many of us are now preparing our vegetable gardens for fall planning, but should you till or turn the soil? Here are the facts you should know before getting started.

Using Animal Manures in the Vegetable Garden: The 90/120 Rule

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Upcoming Programs & Events: September & October

- September 9th - 10th — Tractor Driving for Women at the North Florida Research and Education Center—Suwannee Valley, located at 8202 CR 417 in Live Oak. Call 386-362-1725 ext 109 for more information or visit http://nfrec.ifas.ufl.edu

- September 21st — Home Vegetable Gardening 6:00pm to 7:00pm at the Baker County Extension Office. Learn to be successful in the vegetable garden by knowing when and what to plant plus other helpful tips and tricks. This class if free but seating is limited. Please call 259-3520 to register by Friday, September 17th to secure your seat.

- October 8th — Fall Orchard Management at the North Florida Research and Education Center—Suwannee Valley, located at 8202 CR 417 in Live Oak. Topics include establishing an orchard, transitioning to winter, weed management, and developing a business plan. Featured crops will include persimmon and chestnut. This is the first workshop of a four part series. The cost is $80 per workshop or $240 for the complete series. Visit the Baker County Extension Office for a registration form. For more information, call 386-362-1725 ext 109 or visit http://nfrec.ifas.ufl.edu.
September Fertilization
Fertilizing in late summer or early fall can help prepare plants for the winter ahead.

Lawn Fertilization
You have probably heard about using a “winterizer” fertilizer on your lawn to enhance winter hardiness. But is it true? A “winterizer” fertilizer should contain higher amounts of potassium since potassium can enhance cold tolerance and spring green-up, but contrary to some claims should not be applied during winter. Instead, fertilization should be completed in September. However, not all “winterizer” fertilizers have higher amounts of potassium and some are much too high. To be sure that your “winterizer” fertilizer is doing the job it should, look for a product containing equal amounts of nitrogen and potassium (phosphorus should only be applied if a soil test determines it is needed). One example is a 15-0-15 fertilizer which contains 15% nitrogen, 0% phosphorus, and 15% potassium.

Fertilizers should be applied at a rate determined by the type (quick release vs. slow release) and amount (%) of nitrogen present in the material. Use the chart below to determine the approximate weight of fertilizer to use for a given lawn area in pounds (first number) and also in cups (second number) to deliver the recommended rate for a single application of soluble or quick release fertilizer. If applying a fertilizer product that has at least 30% slow-release nitrogen, these rates can be doubled.

<table>
<thead>
<tr>
<th>Area (sq ft)</th>
<th>6%</th>
<th>10%</th>
<th>12%</th>
<th>15%</th>
<th>16%</th>
<th>23%</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>13.3 oz 1% c.</td>
<td>8 oz 1 c.</td>
<td>6.7 oz 14 TB</td>
<td>5.3 oz ½ c.</td>
<td>5 oz 10 ½ TB</td>
<td>3.5 oz 9 TB</td>
</tr>
<tr>
<td>1000</td>
<td>8.4 lbs 17 ½ c.</td>
<td>5 lbs 9 ½ c.</td>
<td>4.2 lbs 8 ½ c.</td>
<td>3.3 lbs 7 ½ c.</td>
<td>3.1 lbs 6 ½ c.</td>
<td>2.2 lbs 5 ½ c.</td>
</tr>
<tr>
<td>1500</td>
<td>13 lbs 26 ½ c.</td>
<td>7.5 lbs 14 ½ c.</td>
<td>6.5 lbs 13 c.</td>
<td>4.9 lbs 11 c.</td>
<td>4.8 lbs 9 ½ c.</td>
<td>3.3 lbs 8 ½ c.</td>
</tr>
<tr>
<td>3000</td>
<td>25.2 lbs 52 ½ c.</td>
<td>15 lbs 28 ½ c.</td>
<td>12.6 lbs 26 c.</td>
<td>9.8 lbs 21 ½ c.</td>
<td>9.4 lbs 19 ½ c.</td>
<td>6.6 lbs 16 ½ c.</td>
</tr>
<tr>
<td>5000</td>
<td>42 lbs 87 ½ c.</td>
<td>25 lbs 47 ½ c.</td>
<td>21 lbs 43 ½ c.</td>
<td>16.4 lbs 36 ½ c.</td>
<td>15.8 lbs 32 ½ c.</td>
<td>11 lbs 27 ½ c.</td>
</tr>
</tbody>
</table>

Palm Fertilization
Palms have different nutritional requirements than other landscape plants, and correcting (or preventing) nutrient deficiencies now will help them fair the cold through the winter.

- Fertilize areas within 30 ft of large established palms with a 4-1-6-2 (N-P-K-Mg) ratio fertilizer. An example of this is an 8-2-12-4 Mg fertilizer. In other words, it contains 8% nitrogen (N), 2% phosphorus (P), 12% potassium (K), and 4% magnesium (Mg).
- Nitrogen (N), potassium (K), and magnesium (Mg) should have equivalent percentages of each nutrient in controlled-release form. (When these nutrients are not slowly released at the same rate, or an improper ratio of nutrients is used, you could actually cause new deficiencies or intensify current nutrient deficiencies.)
- Because palms are highly prone to several potentially fatal micronutrient deficiencies, palm fertilizer must contain 1-2% iron (Fe) and manganese (Mn), plus trace amounts of zinc (Zn), copper (Cu), and boron (B).

Horticulture Judging at the Fair
2010 Baker County Fair, October 1st—9th
Gardeners of all ages, both amateur and experienced are invited to show off their plants at this year’s fair!

Never shown your plants before? There has never been a better time to start! All qualified entries will receive a ribbon and cash prize! (See details below on how to qualify...it’s easy.)

Horticulture Exhibit Guide for Entry

<table>
<thead>
<tr>
<th>Section A – Flowering/Fruiting Plants</th>
<th>Section D – Bonsai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1 – African Violets</td>
<td>Class 1 – All Entries</td>
</tr>
<tr>
<td>Class 2 – Orchids</td>
<td>Class 2 – Succulents</td>
</tr>
<tr>
<td>Class 3 – Other</td>
<td>Class 3 – Euphorbia</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section B – Foliage Plants</th>
<th>Section E – Cacti &amp; Succulents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1 – Ferns</td>
<td>Class 2 – Bromeliads</td>
</tr>
<tr>
<td>Class 2 – Bromeliads</td>
<td>Class 3 – Aroids</td>
</tr>
<tr>
<td>Class 3 – Aroids</td>
<td>Class 5 – Begonias</td>
</tr>
<tr>
<td>Class 6 – Other</td>
<td>Class 2 – Ferns</td>
</tr>
<tr>
<td>Class 4 – Other Foliage</td>
<td>Class 3 – Cacti &amp; Succulents</td>
</tr>
<tr>
<td>Class 5 – Palms</td>
<td>Class 4 – Other Foliage</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Section C – Special Display</th>
<th>Section F – Hanging Baskets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1 – Container Gardens</td>
<td>Class 1 – Flowering/Fruiting</td>
</tr>
<tr>
<td>Class 2 – Mounted</td>
<td>Class 2 – Ferns</td>
</tr>
<tr>
<td>Class 3 – Topiary</td>
<td>Class 3 – Cacti</td>
</tr>
</tbody>
</table>

| Section G – Any entry that does not fit other sections |

To qualify:
- You may enter up to 25 plants, but not more than one of the same cultivar or variety of plant.
- All plants must have been grown by you, and in your possession for at least three months prior to the fair.
- All plants and containers must be clean, groomed, and free from disease and insects.
  - Clean your entry using a wet cloth to remove any dirt from the leaves and from the outside of the pot.
  - Groom your plant by removing any dead leaves, leaves with dead spots, or other blemishes. Remove fallen leaves and debris from the inside of the container also.

Entries will be accepted Tuesday, Sept. 28 from 12pm—7pm and Wednesday, Sept. 29 from 12pm to 5pm.

For a complete list of contest rules, refer to the fair book.

Premiums for Ribbons
- Blue - $3
- Red - $2
- White - $1
- Best of Class - $3
- Best of Section - $4
- Best of Show - $5

We need more youth entries! Youth entries are judged separately from adults and there are many prizes to be won! This is a great opportunity for the younger crowd to increase their interest in gardening while putting a little cash in their pocket!