Fruit Tree Spraying Considerations for South Dakota

Step one

- The most important step in controlling diseases and insects is identifying the cause of the problem.
- Misidentifying a disease or insect wastes time and money through inappropriate and ineffective remedies.

When to apply

April-May

Common apple diseases

- Apple Scab
- Cedar-apple Rust
- Fire Blight
- Sooty Blotch & Flyspeck

Apple Scab & Cedar Apple Rust

- The two major foliage and fruit diseases of apples in South Dakota
- Both generate high volume of calls in July (when too late to treat)
- Timing of spray is critical!
Apple Scab

- fruit may have hard scabby lesions
- Control: sanitation in fall rake all leaves and fallen fruit within a couple hundred feet of the trees and remove (burn)

Apple Scab fungicide treatment

- apply from bud swell to petal fall
- young leaves are most susceptible within the first five days of unfolding
- most effective control at this stage

Apple Scab fungicide treatment

- start with the first application as the buds are JUST beginning to expand
- called bud break or “green tip”

Apple Scab fungicide treatment

- when less than ½” of leaf showing

peach showing swollen bud

peach showing ½” green
Apple Scab fungicide treatment

- if eating the apples
  - captan is the most common
  - myclobutanol

Apple Scab fungicide treatment

- if ornamental (will not be eaten) can use
  - chlorothalonil
  - propriconazole or tebuconazole
  - mancozeb (also controls cedar-apple rust)
  - myclobutanol
  (check 2011 registrations for availability)
Fire Blight

Fire Blight Fungicides

Just as buds begin to swell use a copper product; after buds open can injure the expanding leaves

Cedar Apple Rust

Cedar Apple Rust

cedar hawthorn rust photo

Cedar-apple rust Fungicides

- defoliation by mid-summer (if severe)
- alternate host is "cedar" = juniper
- removing junipers has no effect, as the spores can be blown in from a distance
- at this time there are no fungicides on the market for the homeowner (mancozeb)

Sooty blotch and Flyspeck

- Surface blemishes, do not damage fruit quality. Can rub off with your hand.
Apple sooty blotch & flyspeck fungicide treatment

Common apple insects

NEVER SPRAY AT BLOOM!

you will kill the pollinators

- Codling Moth – at petal fall
- Apple Maggot – early July
- Plum Curculio – at petal fall

Fruit Tree borers

- Need to identify which borer, as not all the chemicals work on all the types
- generally control with carbaryl (Sevin), permethrin, or imidacloprid

<table>
<thead>
<tr>
<th>Tree height (feet)</th>
<th>Spread of tree (feet)</th>
<th>Gallons of spray mixture per tree per application</th>
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</thead>
<tbody>
<tr>
<td>5 to 8</td>
<td>3 to 6</td>
<td>1 to 1 ½</td>
</tr>
<tr>
<td>8 to 12</td>
<td>6 to 9</td>
<td>1 ½ to 3</td>
</tr>
<tr>
<td>12 to 18</td>
<td>9 to 15</td>
<td>3 to 5</td>
</tr>
<tr>
<td>18</td>
<td>15</td>
<td>4 to 6</td>
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</tbody>
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Table 1. Approximate spray volume required for thorough coverage of fruit trees to the point of run-off.

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