

Holistic Spray

Prevention is better than a cure when it comes to pest and disease management. The Giving Grove has adopted an approach developed by Michael Phillips to help manage pest and disease in your orchard. This spray should be applied 5 times in a year, 4 separate times through the spring and once in the fall (apple and pear trees typically require additional sprays). (The first spray in the spring and the fall spray use a 1% neem solution. The remaining spring sprays use .5% neem solution [pg 28].) The timing is determined by the bud development of your trees:

Spray #1- When green tip of bud is 1/4-1/2" visible.

Spray #2- When leaf tissue has filled out and pink buds begin to show

Spray #3- When flower petals have fallen off of the fruit bud.

Spray #4- Spray 10-14 days after Spray #3.



*Spray #5 will be used in the fall, late October to December.

Holistic Spray Recipes

1% Neem Holistic Spray Solution

This solution should be used for the first spray of the spring and the fall spray.
(Select recipe based on your sprayer size)

FOR A 1 GALLON SPRAYER (YRS 1-3 COVERS APPROX. 5 TREES, YRS 3+ COVERS APPROX 2 TREES):

Ingredients

- 2.25 Tbsp (1.25oz) Neem
- 1 tsp liquid dish soap (Dr. Bonner's or Dawn recommended)
- 3 Tbsp (1.5oz) BioAg probiotic
- 5 Tbsp (2.5 oz) liquid fish (in the fall season, double the amount of liquid fish)

FOR A 2 GALLON SPRAYER (YRS 1-3 COVERS APPROX. 10 TREES, YRS 3+ COVERS APPROX. 5 TREES):

Ingredients

- 5 Tbsp (2.5 oz) Neem
- 2 tsp liquid dish soap (Dr. Bonner's or Dawn recommended)
- 6 Tbsp (3 oz) BioAg probiotic
- 10 Tbsp (5 oz) liquid fish (in the fall season, double the amount of liquid fish)

FOR A 4 GALLON SPRAYER (YRS 1-3 COVERS APPROX. 20 TREES, YRS 3+ COVERS APPROX. 10 TREES):

Ingredients

- 10 Tbsp (5 oz) Neem
- 5 tsp liquid dish soap (Dr. Bonner's or Dawn recommended)
- .75 cup (6 oz) BioAg probiotic
- 1.25 cup (10 oz) liquid fish (in the fall season, double the amount of liquid fish)

Directions:

1. If neem has been in a cool area or outside, bring inside to warm up overnight or heat under warm/very warm water.
2. Determine correct recipe based on sprayer size.
3. Combine soap with neem and stir vigorously to break down consistency.
4. Add liquid fish and BioAg (effective microbes) with soap/neem solution in sprayer.
5. Add warm water to sprayer to fill sprayer and shake tank vigorously.

To apply:

1. In the spring, apply when buds tips are showing 1/2 inch of green. In the fall, apply once between late October and early December.
2. Cover buds, trunk, branches, and any cracks/crevices in the tree structure. If spraying in the fall, also spray the remaining leaf matter on the ground.

.5% Neem Holistic Spray Solution

This solution should be used for the 2nd, 3rd, and 4th spring sprays.
(Select recipe based on your sprayer size)

FOR A 1 GALLON SPRAYER (YRS 1-3 COVERS APPROX. 5 TREES, YRS 3+ COVERS APPROX. 2 TREES):

Ingredients

- 1.25 Tbsp (.6oz) Neem
- 1/2 tsp liquid dish soap (Dr. Bonner's or Dawn recommended)
- 3 Tbsp (1.25oz) BioAg probiotic
- 5 Tbsp (2.5 oz) liquid fish (in the fall season, double the amount of liquid fish)

FOR A 2 GALLON SPRAYER (YRS 1-3 COVERS APPROX. 10 TREES, YRS 3+ COVERS APPROX. 5 TREES):

Ingredients

- 2.5 Tbsp (1.25 oz) Neem
- 1 tsp liquid dish soap (Dr. Bonner's or Dawn recommended)
- 6 Tbsp (3 oz) BioAg probiotic
- 10 Tbsp (5 oz) liquid fish (in the fall season, double the amount of liquid fish)

FOR A 4 GALLON SPRAYER (YRS 1-3 COVERS APPROX. 20 TREES, YRS 3+ COVERS APPROX. 10 TREES):

Ingredients

- 5 Tbsp (2.55 oz) Neem
- 2 tsp liquid dish soap (Dr. Bonner's or Dawn recommended)
- .75 cup (6 oz) BioAg probiotic
- 1.25 cup (10 oz) liquid fish (in the fall season, double the amount of liquid fish)

Directions:

1. If neem has been in a cool area or outside, bring inside to warm up overnight or heat under warm/very warm water.
2. Determine correct recipe based on sprayer size.
3. Combine soap with neem and stir vigorously to break down consistency.
4. Add liquid fish and BioAg (effective microbes) with soap/neem solution in sprayer.
5. Add warm water to sprayer to fill sprayer and shake tank vigorously.

To apply:

[The first spring spray uses the 1% neem solution listed on the previous page.]

- 2nd spring spray: Spray when colored flower buds emerge. Cover trunks, branches, and any cracks/crevices in the tree structure.
- 3rd spring spray: Spray after flower petals have fallen. Cover leaf canopy and developing fruitlets.
- 4th spring spray: Spray 10-14 days after applying the 3rd spray. Cover leaf canopy and developing fruitlets. For trees older than 3, consider adding Bt (thuricide) or Spinosad (look to directions on bottle for amounts) to the 4th spray as most fruit caterpillars are active now. For apple and peach trees, consider spraying every 10-14 days through the growing season.

Tip If there is solution leftover after application, save the solution for the next spray by storing in an area protected by the elements. Can be stored for up to 10 days.