Comparison of Organic Seed Coating in Corn  
– Neely-Kinyon Trial, 2005

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Introduction
Organic agriculture is constantly in need of new techniques to combat destructive organisms. According to Agricoat LLC, their product, Agricoat Natural II™, is “an organic liquid biological seed treatment applied as a seed film coating and formulated with beneficial microbes, macro and micro nutrients, amino acids, organic acids, enzymes, proteins, vitamins, and minerals.” Agricoat also states that Natural II™ “promotes root growth and protects seedlings against early season soil-borne pathogens, improving germination, stand establishment and uniformity.”

Materials and Methods
Treatments, replicated six times in a completely randomized design, consisted of NC+ 4771 seed with a coating of AgriCoat Natural II™ (Agricoat LLC, Soledad, CA) and the same variety without the coating. Seed was planted on May 16 at 32,000 seeds/acre after an application of chicken litter compost at 8 tons/acre on March 18, 2005. Plots were harrowed on May 19 and 24, and rotary hoed June 2, and cultivated June 7 and 21, 2005. Plots were also hand hoed on June 30. Plant stands were counted on June 14. Plots were harvested on October 17, 2005.

Results and Discussion
There was no significant difference between treatments in corn stands (Table 1) with an average difference of 333 plants per acre between treatments. This result may have been due to the late planting of corn (i.e., when weather was warmer). Despite this, yields were significantly different, with the coated seed plots yielding 183.4 bu/ac and the uncoated seed plots yielding 172.8 bu/ac (Table 1). This may suggest the seed coating has an effect on number of ears per plant or weight of each individual ear of corn.

Acknowledgments
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Table 1. Corn stands and yields at Neely-Kinyon Farm, 2005.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Corn stands plants/acre</th>
<th>Corn yield bu/ac</th>
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</thead>
<tbody>
<tr>
<td>Coated seed</td>
<td>26,833</td>
<td>183.4a</td>
</tr>
<tr>
<td>Uncoated seed</td>
<td>26,500</td>
<td>172.8b</td>
</tr>
<tr>
<td>LSD (0.05)</td>
<td>NS</td>
<td>8.5</td>
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