Effect of salt particle size and extended mixing times on the uniformity of mix of commercial corn-soy diets

Principal Investigators
Marut Saensukjaroenphon; Department of Grain Science and Industry
Charles Stark; Department of Grain Science and Industry/ Department of Animal Sciences and Industry

Collaborations
C. Fahrenholz, L. Lewis; Phibro Animal Health co.
J. McAtee; Department of Animal Sciences and Industry
J. Kalivoda; Department of Grain Science and Industry
### Research Project Title

Effect of salt particle size and extended mixing times on the uniformity of mix of commercial corn-soy diets.

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**Dr. Charles Stark**

<table>
<thead>
<tr>
<th>Cooperators:</th>
<th>Statement of Problem:</th>
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<tr>
<td>Charles Fahrenholz</td>
<td>The production of animal feed that has not been properly mixed can lead to poor animal performance or medicated feed assays that do not meet regulatory standards. Feed mills in the United States typically target a coefficient of variation (CV) of less than 10. However, the new O.H. Kruse Feed Technology Innovation Center was not able to achieve a CV of less than 10% after the mixers were installed. Subsequent tests with different salt particle sizes revealed that the uniformity of the mix could be changed by simple changing the particle size of the salt. Additionally there is a belief that extended mixing times will cause segregation of ingredients in a commercial corn-soy diet. However, the scientific literature does not support these claims that a commercial feed will segregate when mixed for an extended time.</td>
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<td>Joel McAtee</td>
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<th>Graduate Student:</th>
<th>The objectives of the research project are:</th>
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<tr>
<td>Marut Saensukjaroenphon</td>
<td>Demonstrate the particle size of salt will affect the CV result when the salt concentration in the diet is determined using the Quantab strip.</td>
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**Goals: Brief description**

- **Goal 1**
- **Goal 2**
- **Goal 3**

**Current Activities:**

1. I have written the protocol.
2. I have collected and analyzed data on the effect of extended mixing times and salt particle size on uniformity of mix in a commercial corn-soy diet.
3. I am writing the material and method section of my manuscript.

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**Recent Publications:**

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