Sim-plete

Feeding Trial

Senior Project
December 2009
Kelsey Johnson
Advisor: Dr. Mark Edwards
## Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Project Proposal and Timeline</td>
<td>2</td>
</tr>
<tr>
<td>List of Sim-plete Trial Participants</td>
<td>3</td>
</tr>
<tr>
<td>Sim-plete Pre-Trial Survey</td>
<td>4-5</td>
</tr>
<tr>
<td>Sim-plete Post-Trial Survey</td>
<td>6-7</td>
</tr>
<tr>
<td>Assessment of Sim-plete Trial</td>
<td>8-12</td>
</tr>
<tr>
<td>Cost Analysis: Sim-plete vs. Individual Ingredients</td>
<td>13</td>
</tr>
<tr>
<td>Correct Nutrient Deficiencies with Sim-plete</td>
<td>14</td>
</tr>
</tbody>
</table>
Senior Project Proposal and Timeline

Type of senior project-

Internship of Equine Nutrition Inc. (ENI) Evaluating Customer Response to a new 2 lb per day Equine Complete Feed

General Overview-

A. An internship with ENI will offer an opportunity to work in the field with horse owners, feeds, marketing, and nutrition. I will be assisting in the placement of a product in the field and evaluating response. It is the first step in evaluating if this product is an appropriate and marketable product.

B. The responsibilities will be to place a new equine feed product with 10-15 horse owners (approximately 30-45 horses) and measure customer response and potential marketability of the product. Including:

1. Delivery of the product
2. Creation of Questionnaires (one will be given before the owners begin feeding the product and another after they have fed the product for the trial period.)
3. Evaluation of customer response and effectiveness of the product

C. There will be no cost for me or the school. The expense of the product, the surveys, and time invested by paid by ENI.

Timeline-

May 4, 2009- The rough draft of the two surveys will be completed.

June 1- The final draft of the two surveys will be completed, and the horse owners will be chosen.

July 1- The first questionnaire will be given to each owner, and the product will be delivered.

September 1- The final questionnaire will be given to each owner to assess their level of satisfaction with the product.

September 28, 2009- The questionnaires will have been assessed

November 30, 2009- A final report will be turned in on the satisfaction of the customers, effectiveness of the product, and potential marketability of the product.
List of Sim-plete Feeding Trial Participants

Roger Nonella
Jennifer Rosenberg
Dave Inman
Rita McFarlene
MSC Ranch
Mark & Ann Malott
Tim Phillips D.V.M.
Bob & Lisa Koch
Dan & Kathie Oxford
Charlie Brewer
Brad & Shelley Santucci
John & Karen Herkner
Equine Nutrition Inc.
Sim-plete Pre-Trial Survey

1. Name:

2. Address:

3. Telephone: Date:
   
   (If any numbers are 5+ Enter the number in the blank)

4. How many horses do you own?
   1  2  3  4  5+___

5. How many will be on this trial?
   1  2  3  4  5+___

6. How many of your horses currently receive a vitamin-mineral supplement?
   1  2  3  4  5+___

7. How do they get the Vitamin Mineral Supplement?
   In Complete Feed Top Dress Supplement In Salt

8. What level of exercise do your horses receive?
   None Light Medium Strenuous

9. Do the horses receive supplement daily?
   Yes No
10. What grain product or commercial product do you feed:

11. How many pounds of concentrate do you feed your horse(s) daily?

<table>
<thead>
<tr>
<th></th>
<th>0-3</th>
<th>4-8</th>
<th>9-12</th>
<th>13-16</th>
<th>17-20</th>
</tr>
</thead>
</table>

12. What supplements do you feed:

13. What type of forage do you feed your horse(s)?

Grass    Alfalfa    Other______________

14. What is the average weight (lbs) of your horses?

<table>
<thead>
<tr>
<th></th>
<th>850-950</th>
<th>960-1050</th>
<th>1060-1150</th>
<th>1160-1200</th>
</tr>
</thead>
</table>

15. How picky are your horse(s) about their feed?

Not at all    Average    Very

16. How confident are you that your horse(s) nutrient needs are fulfilled?

Not at all    Pretty Sure    Very Sure

17. How satisfied are you with your current feeding program?

Not    Partly    Satisfied    Very
Equine Nutrition Inc.
Sim-plete Post-Trial Survey

1. Name:

2. Did you feed the product daily?
   Yes       No

3. How satisfied were you with the serving size?
   Not       Partly       Satisfied       Very

4. How palatable was the product to your horse(s)?
   Not       Partly       Palatable       Very

5. Rate the packaging of the product?
   Poor       Fair       Good       Great

6. How does your horse(s) body condition compare to your previous feeding program?
   Lighter       Same       Heavier

7. Rate hair coat change:
   Poor       No change       Improve

8. Rate the overall reaction to Sim-plete:
   Poor       Neutral       Good       Great
9. Rate Palatability:

| Poor | Average | Good | Great |

10. Rate appearance and aroma of the product:

| Poor | Average | Good | Great |

11. Would you switch to this program:

| Yes | No |
Assessment of Sim-plete Trial

The Sim-plete trial began on July 10, 2009. There were 12 participants in the trial. Participants first completed a pre-trial survey, and were then given a 40lb bag of Sim-plete and a 2lb scoop. The trial lasted 20 days. When the trial period was completed they were contacted to fill out the post-trial survey.

Results of the pre-trial survey:

- Total number of trial participants: 12
- Horses owned: Average: 11 (Range: 1-29)
- Horses on the trial: Average: 2 (Range: 1-3)
  - The trial participants were limited to 2 or 3 horses because of Equine Nutrition Inc.’s trial budget.
- Horses currently on a vitamin-mineral supplement: Average: 9 (Range: 1-29)
- Vitamin-mineral supplement:
  - Complete feed: 4.5%
  - Top Dress Supplement: 82%
  - In Salt: 13.5%
- Level of Exercise:
  - Light: 16%
  - Medium: 50%
  - Strenuous: 34%
- 91% of the horses received supplement daily (either from complete feed, top dress, or salt)
• Amount of concentrate fed:
  o 0-3 pounds: 91%
  o 4-8 pounds: 9%

• Type of hay fed:
  o Grass hay: 64%
  o Alfalfa hay: 9%
  o Alfalfa/Grass Mix: 27%

• Weight of horses on trial: Average: 1060-1150 (Range: 960-1200)

• Pickiness of horses for feed:
  o Not at all: 64%
  o Average: 36%

• Confidence of horse nutrients fulfilled:
  o Not at all: 9%
  o Pretty Sure: 81%
  o Very Sure: 10%

• Satisfaction on their current feeding program:
  o Partly satisfied: 36%
  o Satisfied: 64%
Results of the post-trial survey:

- 10 of 12 participants completed the post-trial survey
- 100% of the respondents fed Sim-plete daily.
- Satisfaction with the serving size:
  - Partly satisfied: 10%
  - Satisfied: 60%
  - Very satisfied: 30%
- Palatability of trial feed:
  - Very palatable: 80%
  - Palatable: 20%
- Appeal of packaging:
  - Great: 10%
  - Good: 90%
- Body condition after trial:
  - Heavier: 40%
  - Same: 60%
- Hair coat:
  - Improved: 20%
  - No change: 80%
- Overall reaction to Sim-plete:
  - Great: 30%
  - Good: 70%
• Appearance and aroma:
  o Great: 50%
  o Good: 40%
  o Average: 10%

• 100% of trial respondents said that they would switch to Sim-plete.

Satisfaction and Effectiveness of the product:

The respondents of the trial seemed to be satisfied with the serving size and the simplicity of the feeding program. The sweet smell of Sim-plete and the texture of the product were appealing to the customers. This is important because people need to feel good about how they spend their money on feeds for their horses. The combination of whole oats, yeast, extruded soy, molasses, and the top-dressing (Trifecta or Horse Guard) made the product very palatable to the trial horses. Each dose provided the horses with the recommended doses of vitamins and minerals for horses in the Northwest. The product was very effective in helping the horses to receive the proper amounts of vitamins and minerals, while making it easy for the customers to feed.

Potential Marketability:

After assessing the surveys, it seems as though Sim-plete is very marketable to customers. The cost of this product will be higher than that of a horse fed just grain and the top-dressing product that Sim-plete contains (Trifecta or Horse Guard). However, when asked, the customers said they are willing to pay a little more for better convenience. The horses also got the added benefits of oils and probiotics that they usually would not receive at a cost which is
cheaper than the customers can buy the individual ingredients. However, in the economy, higher costs may be a drawback in effectiveness of introducing the product.

The next step that the Equine Nutrition Inc. is taking is the placement of the Sim-plete in a local feed store. This will allow the company to have a test market, and further assess the potential success of Sim-plete in a local market.
Cost Analysis: Sim-plete vs. Individual Ingredients

The following list on the left shows the costs of the ingredients if customers were to make a feed similar to Sim-plete. The list on the right shows the cost of the Sim-plete product.

**Horse Guard with Grain mixture**
- Horse Guard: $0.50/day
- Racehorse oats: $0.32/day
- Extruded soy beans: $0.35/day
- Canola Oil: $0.10/day
- Probiotics/yeast: $0.25/day
- Total: $1.52/day
- Personal Time: **You decide**

**Sim-plete with Horse Guard**
- $30/bag @ 20 day supply = $1.50/day

**Trifecta with Grain mixture**
- Trifecta: $3.00/day
- Racehorse oats: $0.32/day
- Extruded soy beans: $0.35/day
- Canola Oil: $0.10/day
- Probiotics/yeast: $0.25/day
- Total: $4.02/day
- Personal Time: **You decide**

**Sim-plete with Trifecta**
- $65/bag @ 20 day supply = $3.25/day
Improve Horse Health - Correct Nutrient Deficiencies when you feed Simplete

One of the challenges in designing a feed/supplement for horses is balancing the large number of nutrients required for optimum health with the wide variety of forages (hay or pasture) that are available. Horses on northwest hay are going to be deficient in some nutrients.

Horses doing moderate work on a typical forage diet, from the northwest, will be deficient in the following nutrients according to NRC (Nutrient Requirements for Horses Sixth Edition). Simplete not only corrects these deficiencies but insures against other potential deficiencies.

<table>
<thead>
<tr>
<th>Short List of Required Nutrients</th>
<th>11.5-kg of NW Grass Hay Feed Analysis</th>
<th>Moderate Working, 500-kg Horse Requirements</th>
<th>Amount of Nutrients in Simplete to Correct Deficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digestable Energy</td>
<td>20.51 Mcal</td>
<td>23.31 Mcal</td>
<td>3.8 Mcal</td>
</tr>
<tr>
<td>Iodine (I)</td>
<td>3.3 mg</td>
<td>3.5 mg</td>
<td>1.0 mg</td>
</tr>
<tr>
<td>Zinc (Zn)</td>
<td>220 mg</td>
<td>400 mg</td>
<td>220 mg</td>
</tr>
<tr>
<td>Selenium (Se)</td>
<td>0.1 mg</td>
<td>1.0 mg</td>
<td>3 mg</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>23,000 IU**</td>
<td>22,500 IU</td>
<td>50,000 IU</td>
</tr>
<tr>
<td>Vitamin E</td>
<td>411 IU</td>
<td>900 IU</td>
<td>1000 IU</td>
</tr>
</tbody>
</table>

* Equine Nutrition Inc. recognizes the selenium requirement at 3 mg per day. The NRC lists it at 1 mg per day but recognizes that the higher level may be appropriate for optimal health and performance.

**Vitamin content varies widely with forages. Forage typically loses 50% of Vitamin A content in 6 months of storage.