Production Update:

**Hay Preservatives (Part 2):** Chemical

Hay preservatives include organic acids (especially propionic acid), ammonia, and urea. Propionic acid is generally thought to be the most reliable preservative, although other compounds are also effective. Horses do not relish hay treated with propionic acid, although no evidence exists to date that this compound is harmful to them. Ammonia can be used as a preservative and is often applied in an effort to boost feed value of low quality hay. Anhydrous ammonia applied at rates greater than 3% may cause toxic compounds to form and pass into milk. Urea does not have the volatility and safety problems of ammonia and is an effective preservative.

**Insect Management:** The granulate cutworm, *Agrotis subterranea* (Fabricius), is a devastating pest of bed planted alfalfa and is also an occasional pest of flood irrigated alfalfa. The cutworm larvae often go undetected until after cutting or hay removal. When fields are watered back, there may be areas with little or no regrowth due to cutworms feeding on new shoots from alfalfa crowns. Granulate cutworm is nocturnal and will move from cracks in the soil or from under duff in the evening and climb into the alfalfa canopy to feed. Some of the cutworms feed on new shoots under the duff, holding back regrowth, depleting starch reserves in the crowns and thereby weaken the plants. Weakened plants are more susceptible to disease. Permethrin, cyfluthrin and endosulfan are insecticides that control this pest. Cutworms feeding under the duff may escape insecticide treatments.

**Weed Control:** The weed species that predominate in the fields are those that are left behind by our control practices. As herbicide usage changes, the weeds change. For instance, sowthistle has become more widespread as we have changed from 2, 4-DB to Pursuit and malva and shepardspurse have disappeared. Nutsedge and bermudagrass have become more widespread and annual grasses less prevalent due to the change from Eptam to Select and Poast.

**Market Summary:**

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Low</th>
<th>Average</th>
<th>Off grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past 2 Weeks (Mar. 26 to Apr. 8, 2001)</td>
<td>115</td>
<td>100</td>
<td>108</td>
<td>90-100</td>
</tr>
<tr>
<td>Last Year (Mar. 26 to Apr. 8, 2000)</td>
<td>105</td>
<td>90</td>
<td>100</td>
<td>70-90</td>
</tr>
</tbody>
</table>

**10 Year Summary**

(March 26, to April 9, 1992 - 2001)

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