Production Update:

**Frost Management:** Frost-damaged alfalfa has lower quality due to leaf loss, lower digestibility, and decreased mineral content. Frost-damaged alfalfa may also accumulate toxic levels of nitrates in rare cases. Water application during freezing temperatures can raise the temperature, but waterlogging can produce negative effects. In the case of alfalfa, the best protection against frost is a healthy crop. Severe frosts can kill the tops of the alfalfa plant and new growth must occur from the base of the plant. Cutting alfalfa after a frost can stimulate this new growth near the base of the plant, but the new growth is then susceptible to subsequent frosts.

**Insect Management:** Egrets, Ibis, gulls, and redwing black birds are commonly seen in alfalfa fields. Birds are important predators of various insect pests in alfalfa including the very damaging granulate cutworm. Egrets, Ibis and gulls are often seen at the leading edge of irrigation water, eating crickets and worms forced to move or drown. Black birds eat cutworms, other worm pests, and aphids on alfalfa stems.

**Weed Control:** Perennial weeds such as nutsedge and bermudagrass and summer annuals, should be going dormant or dying now. This is a good time to take note of where they are to be prepared to start controlling them in the spring with preemergent treatments.

Market Summary:

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Low</th>
<th>Aver.</th>
<th>Off grade</th>
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</thead>
<tbody>
<tr>
<td>Past 2 Weeks</td>
<td>105</td>
<td>90</td>
<td>100</td>
<td>70-90</td>
</tr>
<tr>
<td>Last Year</td>
<td>87</td>
<td>70</td>
<td>81</td>
<td>60-70</td>
</tr>
</tbody>
</table>

10 Year Summary
(November 7 to November 20, 1991 - 2000)

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