Hakari
Alaska brome
*Bromus Sitchensis*

**Origin**
Hakari is the product of a breeding program that spanned twenty years from the New Zealand governmental research station. It compromised selection trials throughout New Zealand. Selection criteria included persistence, yield, disease resistance, time and amount of heading and uniformity. It was evident that the potential for the species was in cooler drier areas. This seedline provided a selection which was used for agronomic trials and designated Hakari.

*Hakari is still green and lush while other fields are dormant.*

**Description**
Hakari is a tall, erect, sparsely tillered, non-creeping brome grass with broad leaves. Hakari has been labeled as the *Matua for colder areas*. It is better adapted for the more severe climates in the Midwest and Northeast of the United States. It is winter dormant and spring growth later and the heading date is later and less prolonged, thus resulting in leafier summer growth.
Hakari is drought and rust tolerant, it is better resistant to rust, higher in energy and more palatable than orchardgrass and is only slightly susceptible to head smut. Hakari performs best on well-drained soils that are reasonable fertile. It can be grazed and also be utilized for hay production. It is very suitable as a companion for alfalfa. It will boost energy levels of the hay or silage. It dries very easily, making it an almost perfect companion for alfalfa. Hakari will utilize nitrogen produced by the alfalfa plants.

Forage yield potential
 Trials have shown Hakari to have similar dry matter production to Matua in spring, but is more productive in the summer and autumn period. At the Klamath experimental station in Klamath Falls OR (altitude 3000 feet) Hakari has been tested amongst other brome varieties. In 1996 Hakari had the highest yield of all brome varieties being tested. It outperformed both commercial released varieties and new experimental lines. Hakari will show its full potential with high levels of manure or nitrogen fertilizer.

Planting and Establishment
 Hakari establishes very fast, much faster than smooth brome or Orchardgrass. Hakari should be planted in spring or early fall, preferably with a legume suitable for the region. (Alfalfa, Red clover, White clover or Trefoil). Hakari is de-awned to ensure good seeding, it is also treated to prevent seed born head smut. Hakari may be successfully established with no-till or with conventional seedbed techniques. No matter which method is used it is critical not to plant too deeply. The seed needs to be covered, but no deeper than one-quarter inch. Young seedlings are not competitive, so existing vegetation needs to be suppressed in no-till plantings.

Seeding rate
 The seeding rate of Hakari is 35 pounds per acre, but differs when planted in combination with legumes:

<table>
<thead>
<tr>
<th>Plant</th>
<th>Seeding rate Hakari</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hakari monoculture</td>
<td>35 pounds per acre</td>
<td>100% grass</td>
</tr>
<tr>
<td>Hakari with 2 pounds white clover</td>
<td>30 pounds per acre</td>
<td>80 % grass, 20 % clover</td>
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<tr>
<td>Hakari with 10 pounds of alfalfa</td>
<td>15 pounds per acre</td>
<td>50 % grass, 50 % alfalfa</td>
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<tr>
<td>Hakari with 15 pounds of alfalfa</td>
<td>8 pounds per acre</td>
<td>25 % grass, 75 % alfalfa</td>
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Management
 As mentioned Hakari is a great companion for alfalfa, its growth habits will not interfere with the cutting regime of the alfalfa. When Hakari is grown in a pure stand, it should be either machine harvested or rotational grazed. It should not be set-stocked, to prevent stand losses. Hakari needs to be grazed close or harvested before winter. Having a tall growth during winter can result in more winter damage.

Hakari is palatable in seed head compared to other grasses, making it suitable for stockpiling during the summer growth period.