

Irrigated Alfalfa Seed Agronomy

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Alfalfa Seed (**and Bee**) Agronomy



Alfalfa/Bees Pasture/Cows



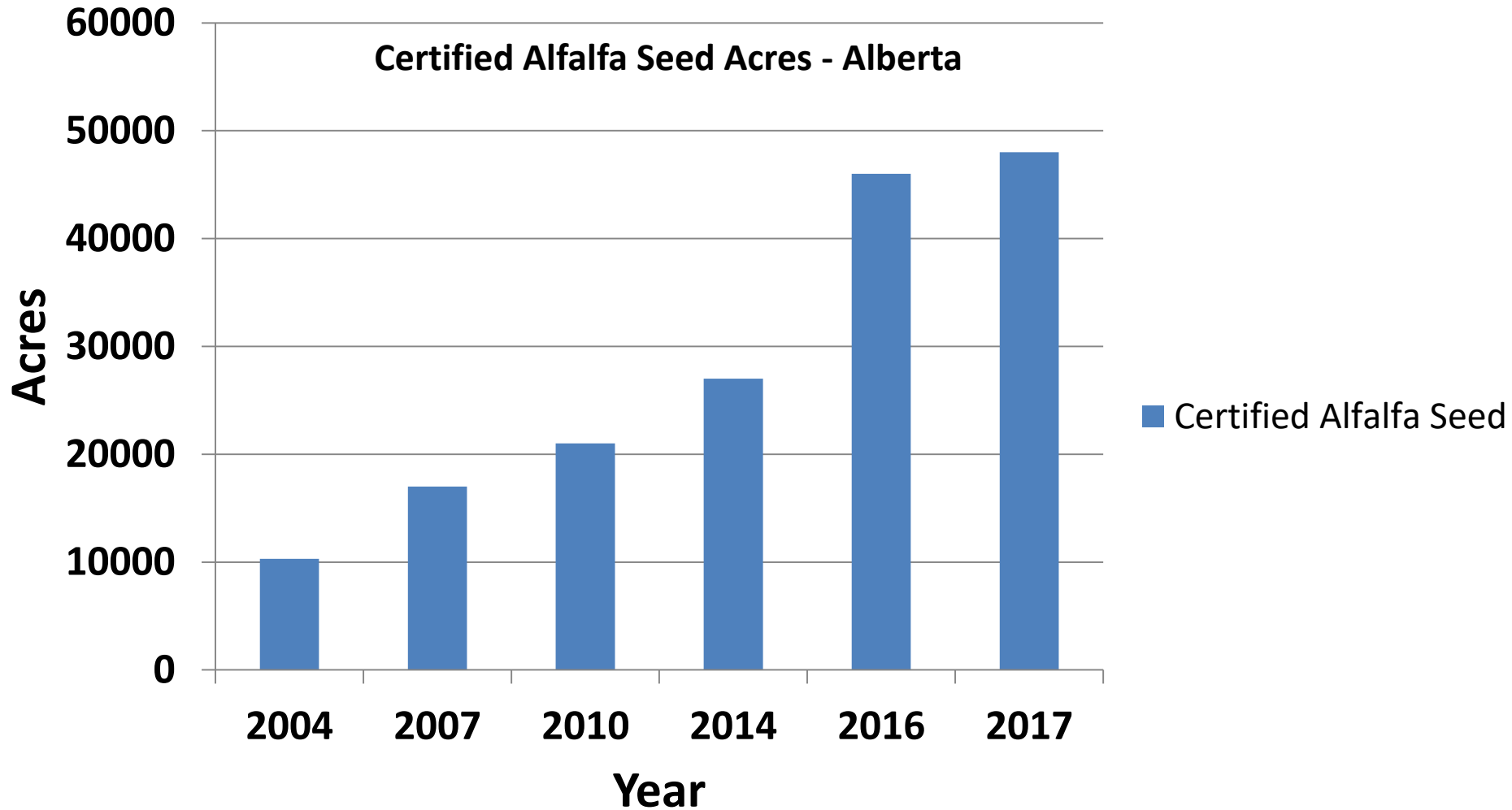
**Alfalfa: excellent nectar, moderate pollen, pliable leaves.
The Queen of Forages & the King of Leafcutter Bee Pasture.**



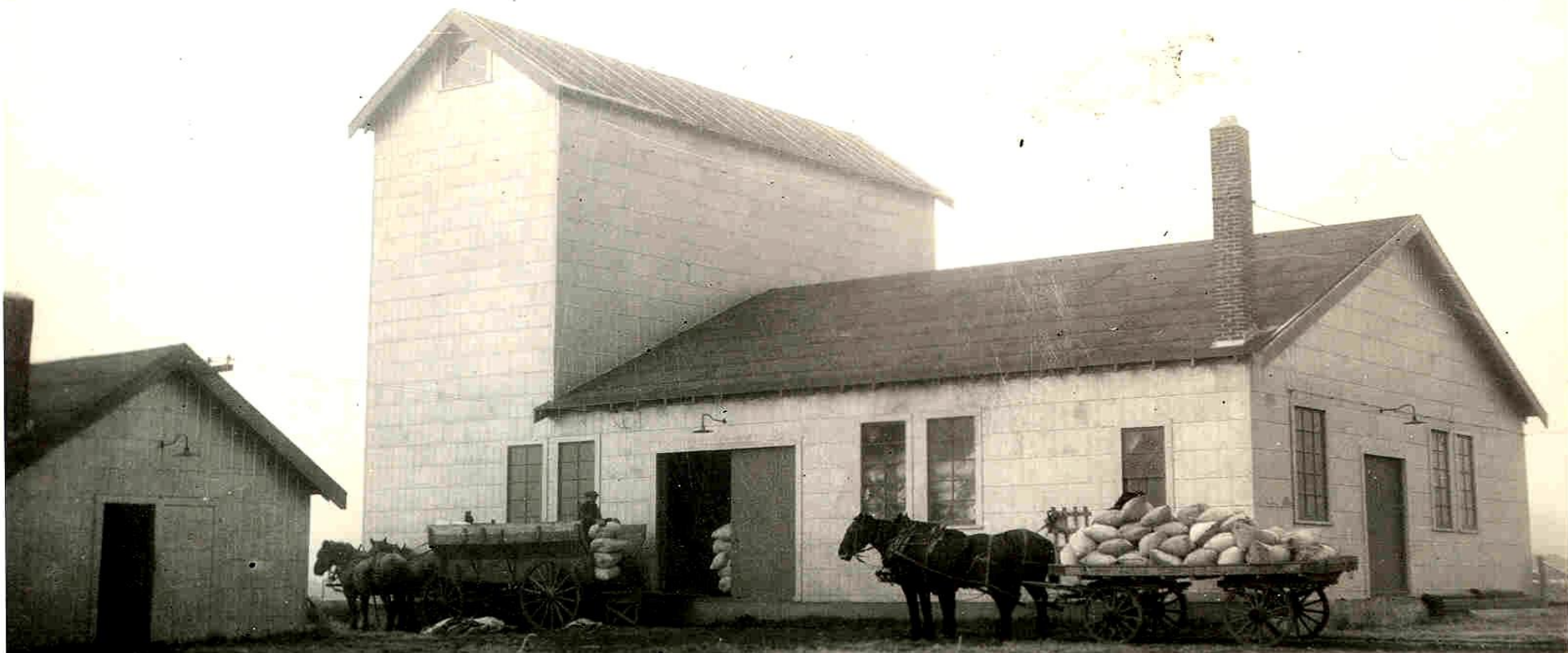
Alfalfa Seed Production Potential



Companies Love Irrigated Alberta



Alfalfa Seed Cleaning Brooks - 1924

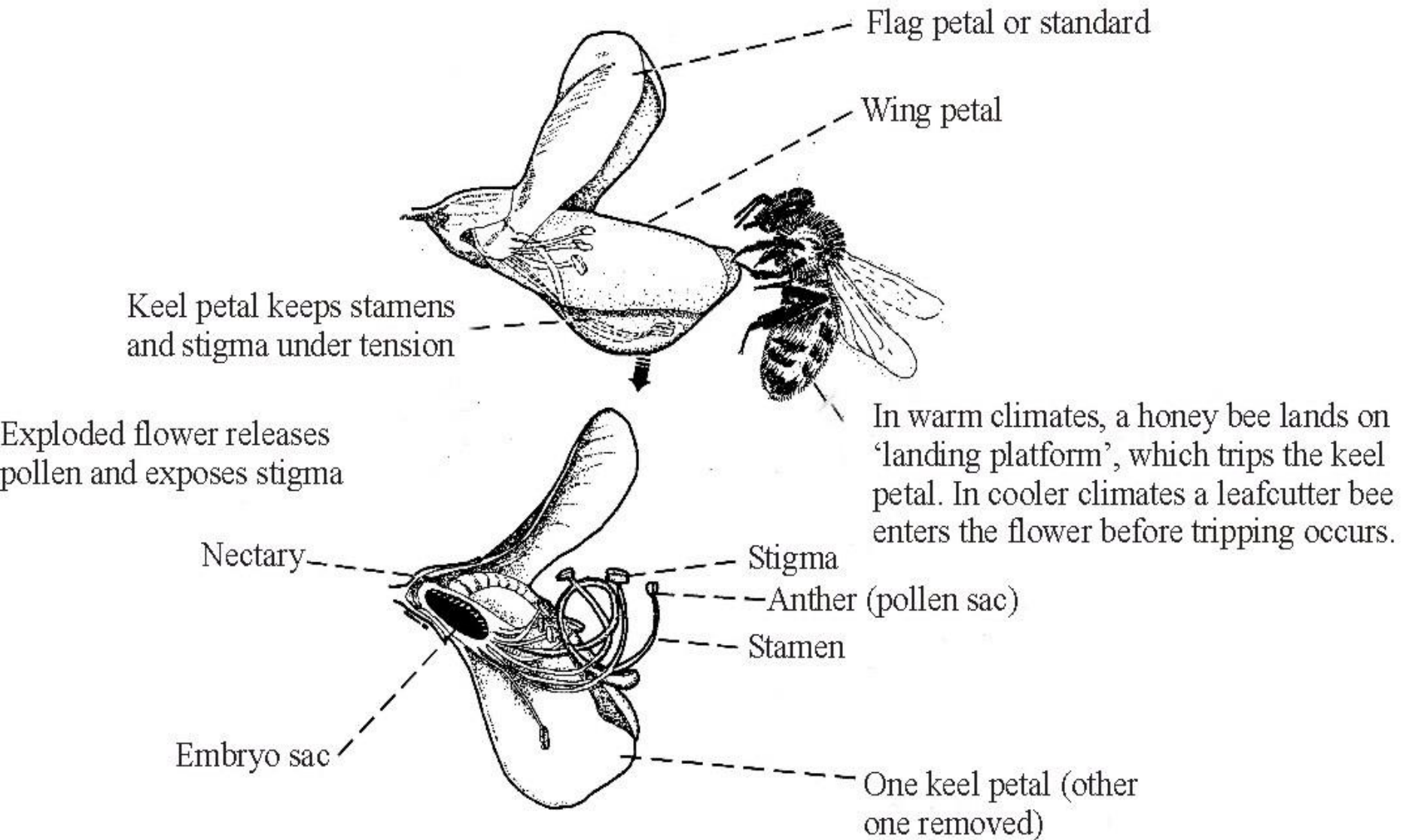


Grimm Alfalfa to U.S. Markets



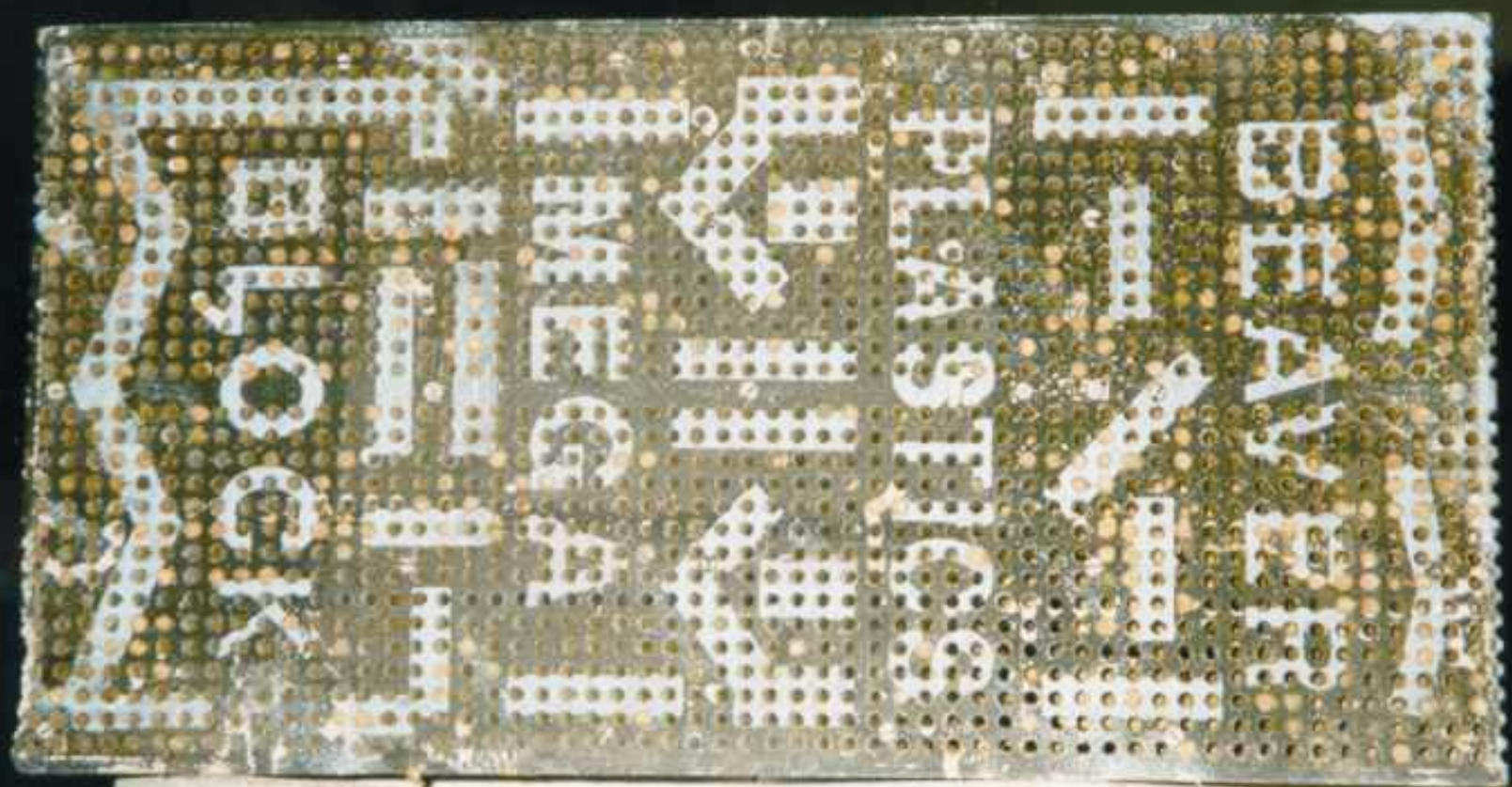
A Honey Bee Tripping an Alfalfa Flower

Drawing by D. Sammataro © 1997









A Healthy Bee Larva







Chalkbrood Fungal Disease



Parasitic Wasp Larvae





Disease and Insect Pressure

Sclerotinia and Botritis



Alfalfa Weevil



**Some Contracts
Demand Over 99%
Pure Seed. Weed
Control is Costly.**



Rouging



Hybrid Canola Production



Leafcutters are Efficient Pollinators

Better Pollination by Shelter



Leafcutters Increase Yield







Know Your Soil Texture and Water Holding Capacity Down to 2 Metres



- Your Soil Probe will be your best friend.
- 3" to 4" Fall Irrigation
- Spring irrigate early or, wait for reproductive stage
- Try to irrigate no more than 1" at a time, wait 3 days (art & science)











Visual Clues complement Soil Moisture monitoring

**Irrigation must balance
growth and stress levels
needed for flowering and
nectar quality**

**Stalk & Internode lengths
are >2 cm. Racemes are
long. Plenty of new bud.**



**Internode and stalk length
Less than 1.5 to 2.0 cm**

**Note the folded leaves and
shortened racemes**

Time to consider irrigation



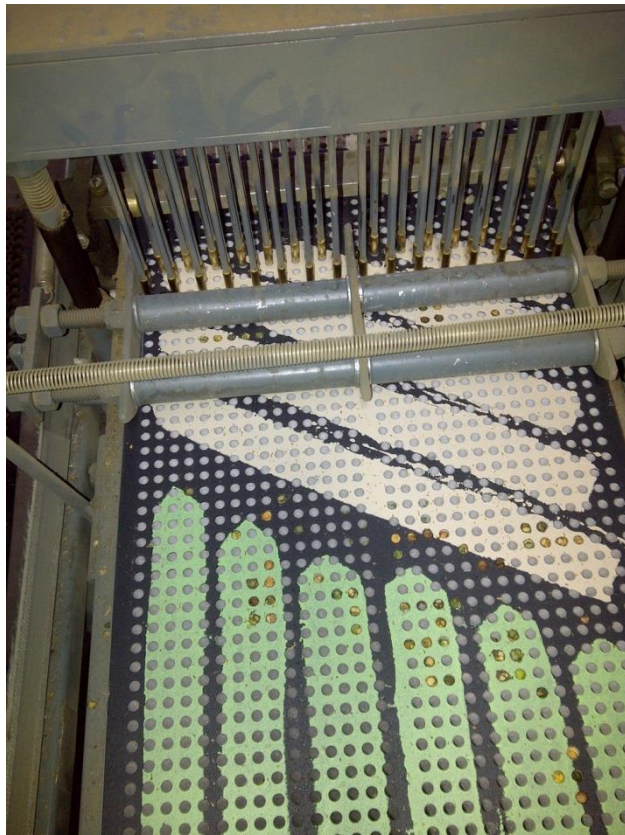
**Raspberry Shaped
raceme = stress**

**Watch for 'hot'
spots that give
advance notice**



Bee Pasture Quality Determines

If Blocks are Empty



Or, If Blocks are full



Bee Pasture Management Directly Relates to Seed Yield



For More Information
Alfalfa Seed Commission
(Alberta)

www.alfalseedab.com

**Alfalfa Seed and
Leafcutter Bee
Production and
Marketing Manual**

Gordon Frank
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Alfalfa Hay



How Many New Hay Acres?



Shelter Design and Layout

