

Plant Materials Development, Cultural Practices for *Agoseris* and *Lupinus*.

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Agoseris

- Species

- heterophylla
- aurantiaca
- grandiflora
- glauca



- Traits

- 1-3 scapes
- Solitary heads
- Wind dispersed
- Some are self fertile
- Will flower for several months given supplemental water



Hindrances to Commercial Production

Seed Yield, Seed Weight, Seed Shatter, Harvesting Equipment

- **Harvest**
 - **Single Harvest**
 - 1 acre 1 x .5 spacing
 - 14-64 lbs
 - **Multiple harvests**
 - 3 heads per plant
 - 43-192 lbs

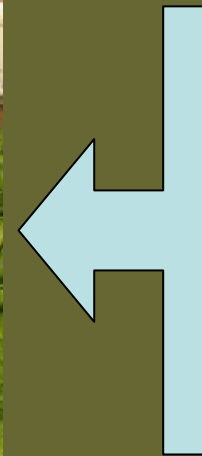


The Greenhouse Option



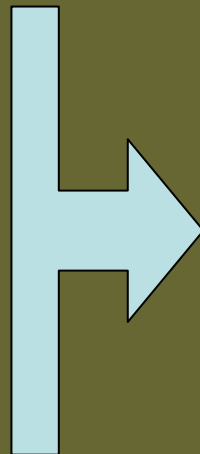
Aphids





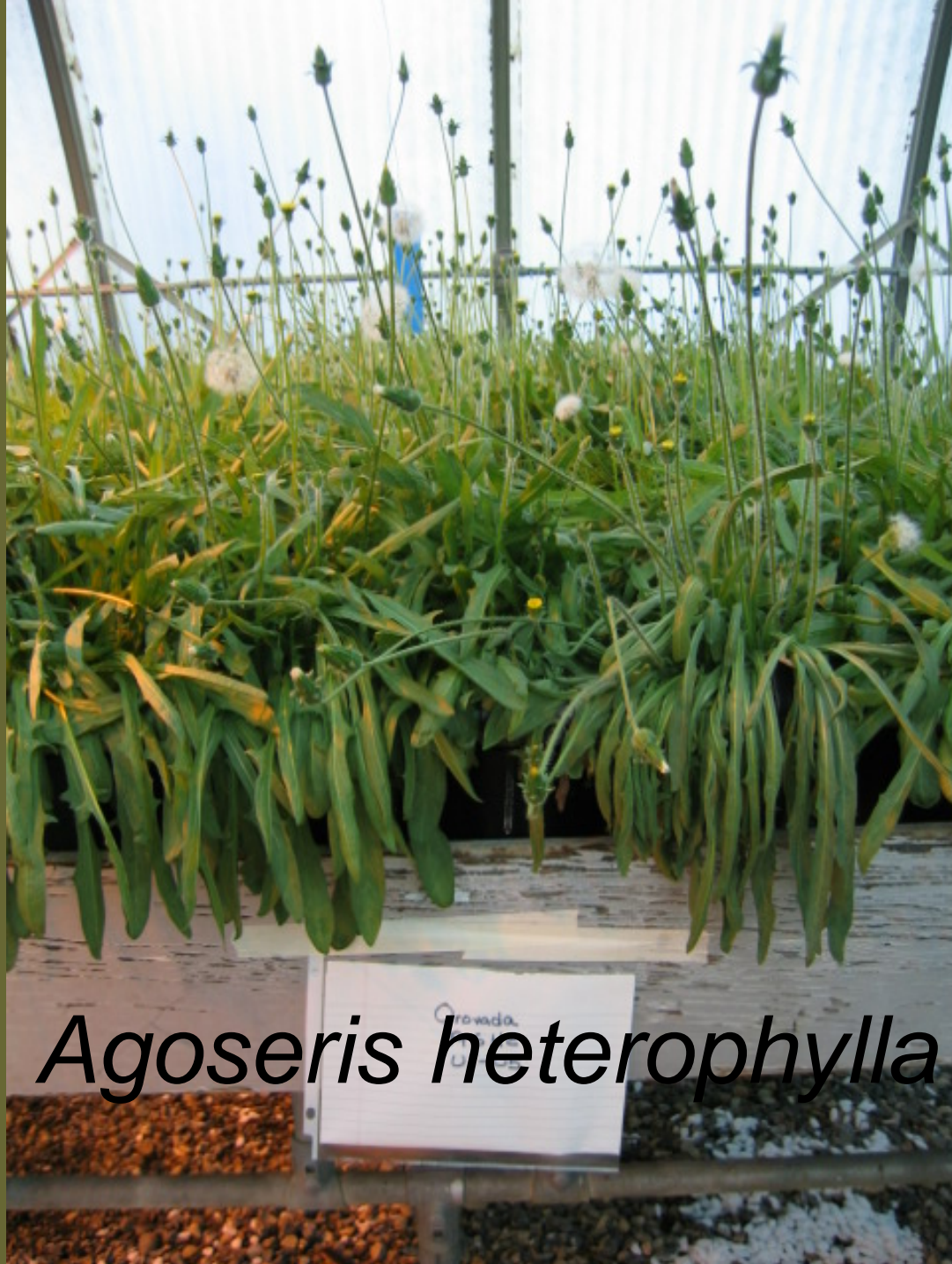
Agoseris
- *heterophylla*
- *grandiflora*

Agoseris
- *glauca*
- *aurantiaca*

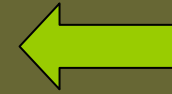


Agoseris grandiflora





Agoseris heterophylla



*Agoseris
aurantiaca*



*Agoseris
glauca*



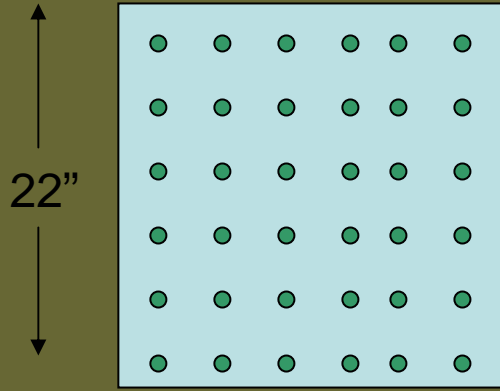




Treatment / Planting Design- 3 plant densities

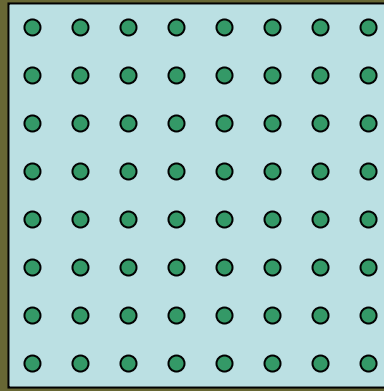
Low density spacing
5.5x5.0 cm

36 plants 6x6 placement



Medium density spacing
6.7x6.2 cm

64 plants 8X8 placement



High density spacing

8.7x8.0 cm

100 plants 10X10 spacing

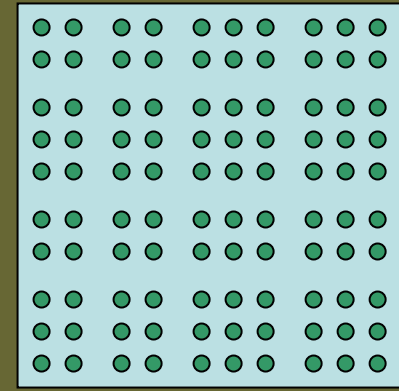
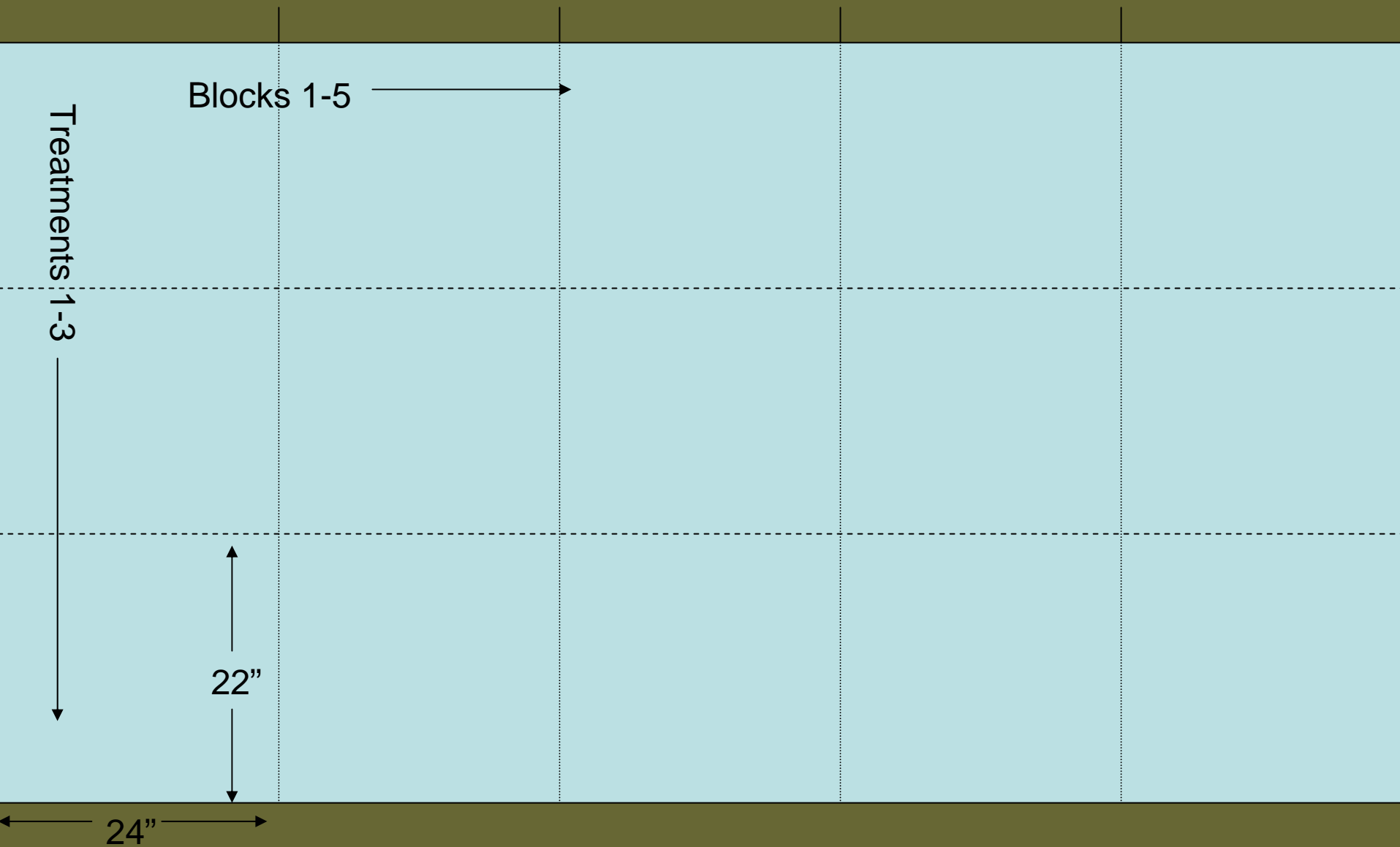


Table layout for *Agoseris heterophylla* greenhouse spacing/soil study.





Lupinus

-arbustus

-argenteus

-prunophilus

-sericeus











2007 Harvest Yields

	lbs. Harvested	Hours to Harvest	lbs/hour
<i>Lupinus prunophilus</i> , Eureka, UT.	33	96	0.34
<i>Lupinus argenteus</i> , Lamoille, NV.	12	110	0.11
<i>Lupinus arbustus</i> , Jarbidge, NV.	22	48	0.46
<i>Lupinus sericeus</i> , Nephi, UT.	30	1	30.00

Incorporating Best Practices





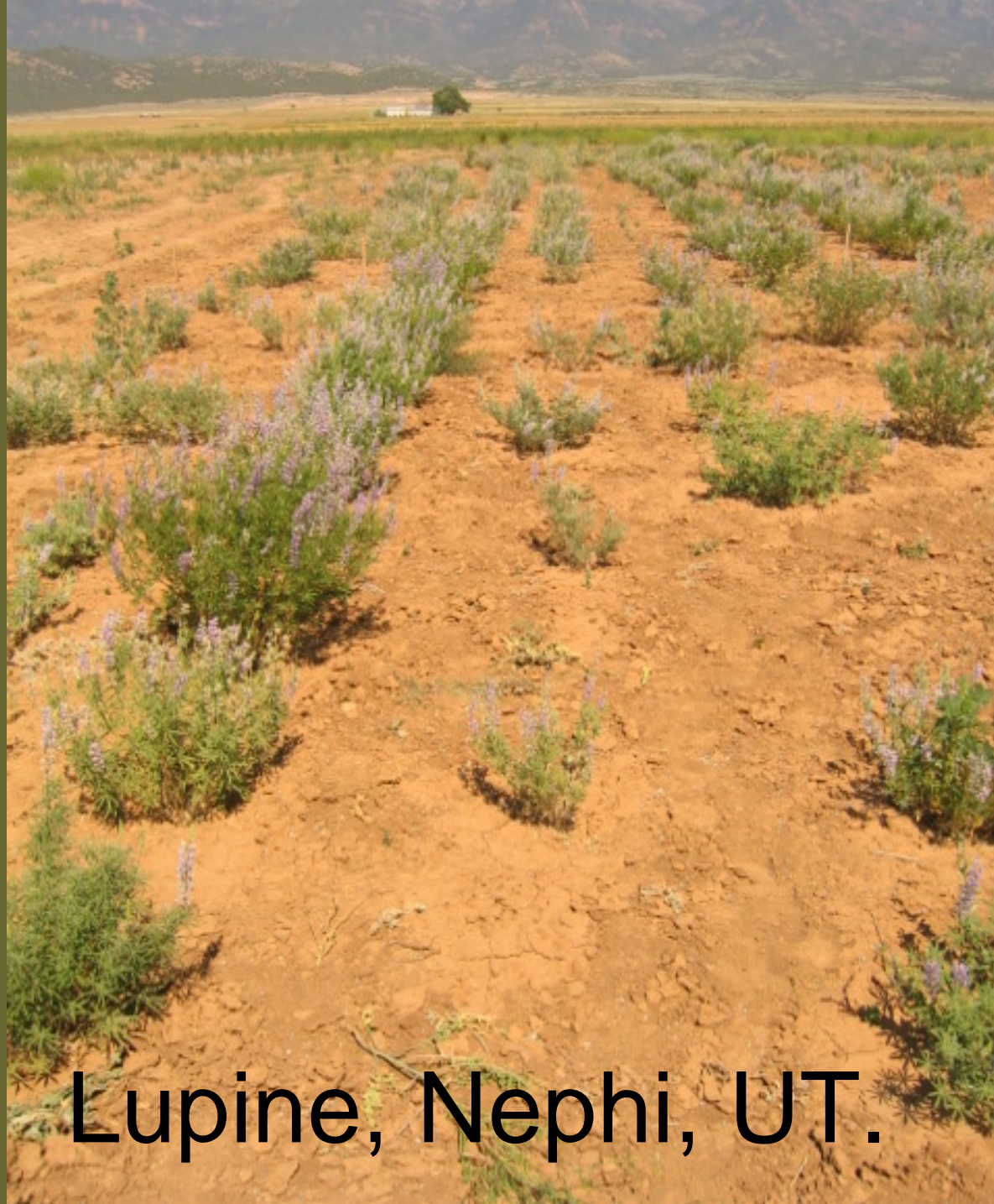




Common Garden Evaluation



Hesperostipa comata



Lupine, Nephi, UT.

Astragalus utahensis, Nephi, UT.





Private Growers





Seedster



Selecting New Species

A Different Approach

- Collecting - few (2-3) biotypes
- Propagation screening
- Observation plots
- Proof of concept

