



Oregon Pasture Seed Production

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Oregon is a special place for seed production



- Climate - Dry summers and mild and wet winters
- Great variety of soils over short distances
- High seed quality
- High dependable yields

Annual ryegrass seed field in autumn (TG Chastain photo)

History and Development of Oregon's Seed Industry

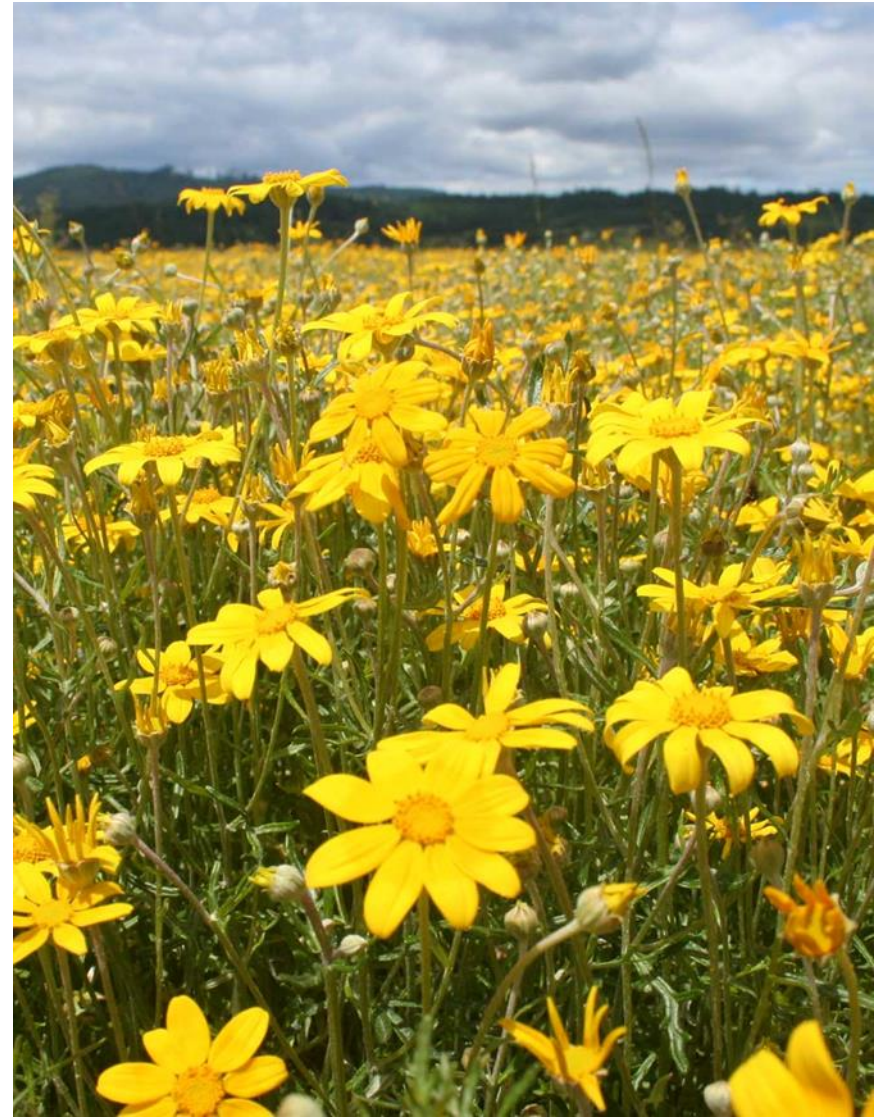
- Grass and legume seed crops were originally produced as a by-product of forage production.
- By the 1930s, farmers began planting grasses and legumes solely for seed production.
- The Oregon seed industry developed because of the favorable climate and the evolution of specialized management practices.
- This evolution resulted from cooperative efforts of seed growers, industry suppliers, Oregon State University and the USDA.



Willamette Valley tall fescue seed field 1949 (top - W Gifford photo, OSU Archives), clover harvest 1930s (bottom)

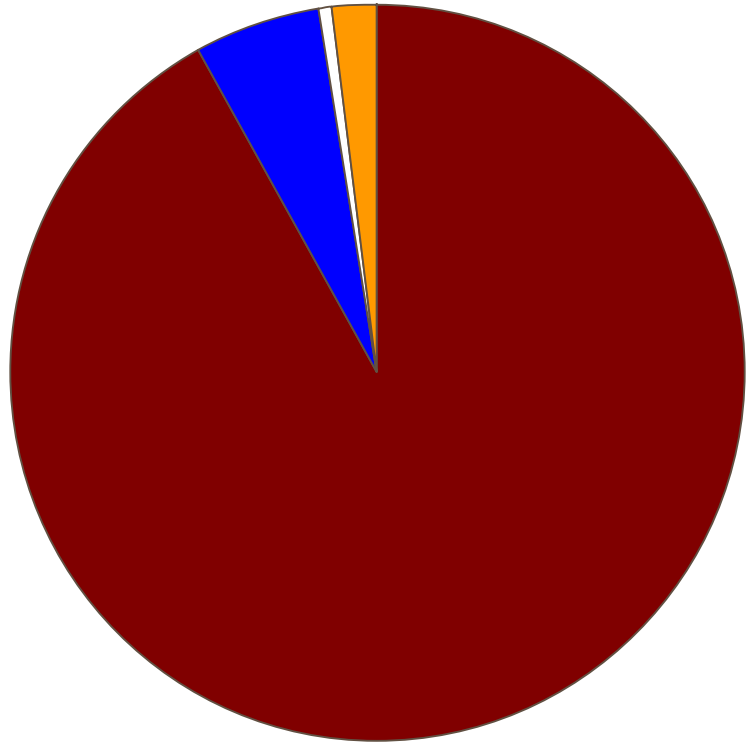
Oregon Seed Crops

- **Grass seed crops** – 11 major species ranging from ryegrasses to bentgrasses.
- **Forage legume seed crops** - 7 species are produced including red clover, white clover, and crimson clover.
- **Sugar beet seed crops** – Oregon is the sole producer of the US sugar beet seed stocks.
- **Vegetable seed crops** - includes *Brassica* spp., onions, carrots, sweet corn, radish, cucurbits, and others.
- **Cereals, oil seed, and grain legumes** – small acreages of seed production.
- **Flower and native plant seed crops** – small but growing in importance.

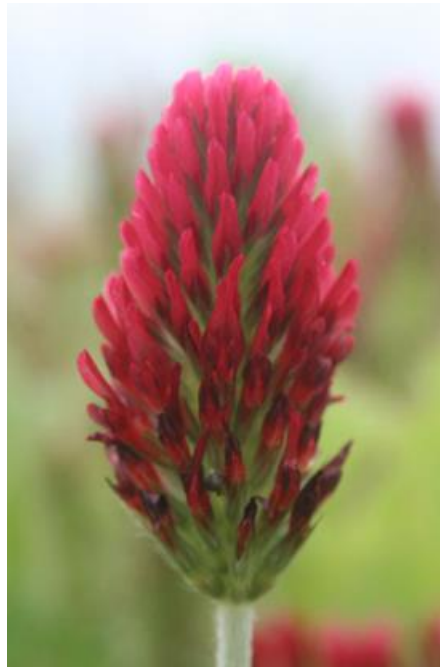


Oregon Sunshine (*Eriophyllum lanatum*) seed field
(TG Chastain photo)

Oregon Seed Production Acreage



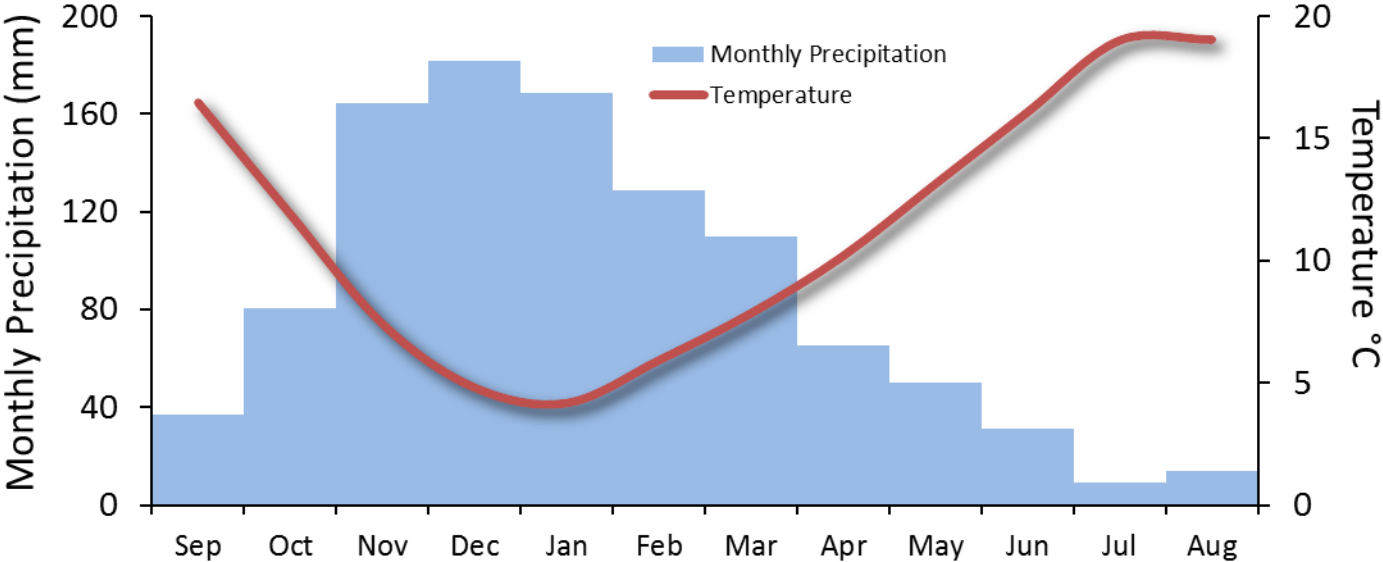
- Grass
- Forage Legume
- Sugarbeet
- Vegetable and Flower



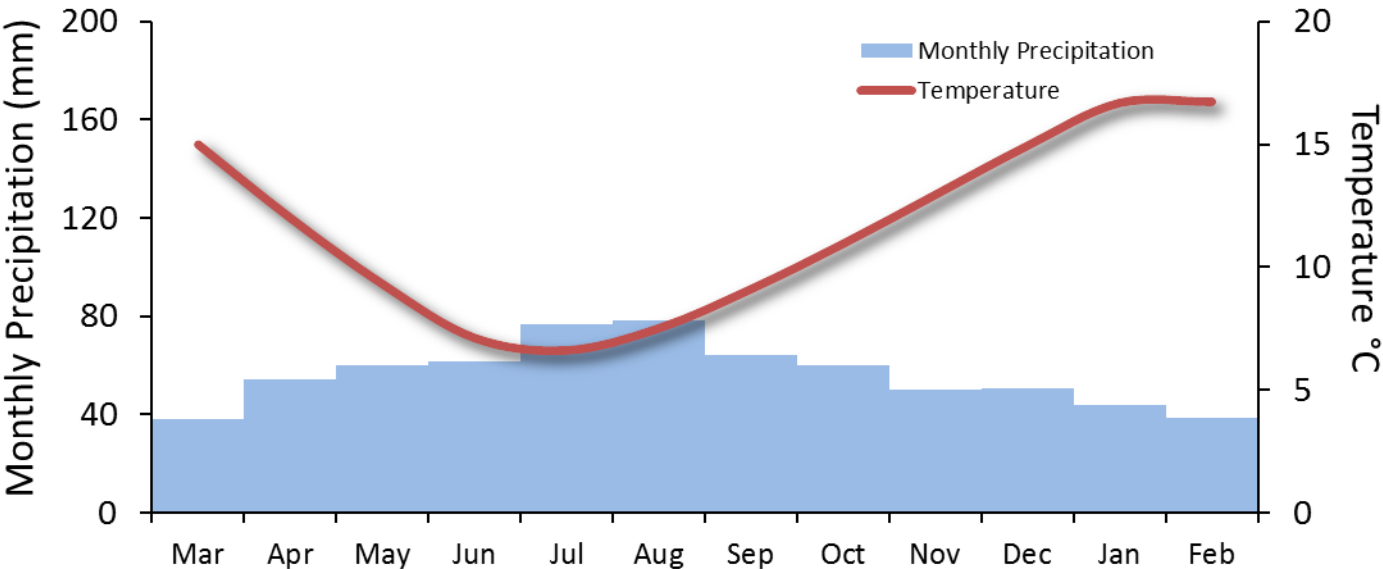
Crimson clover and perennial ryegrass (TG Chastain photos)

Climate and Seed Production

Corvallis
Oregon

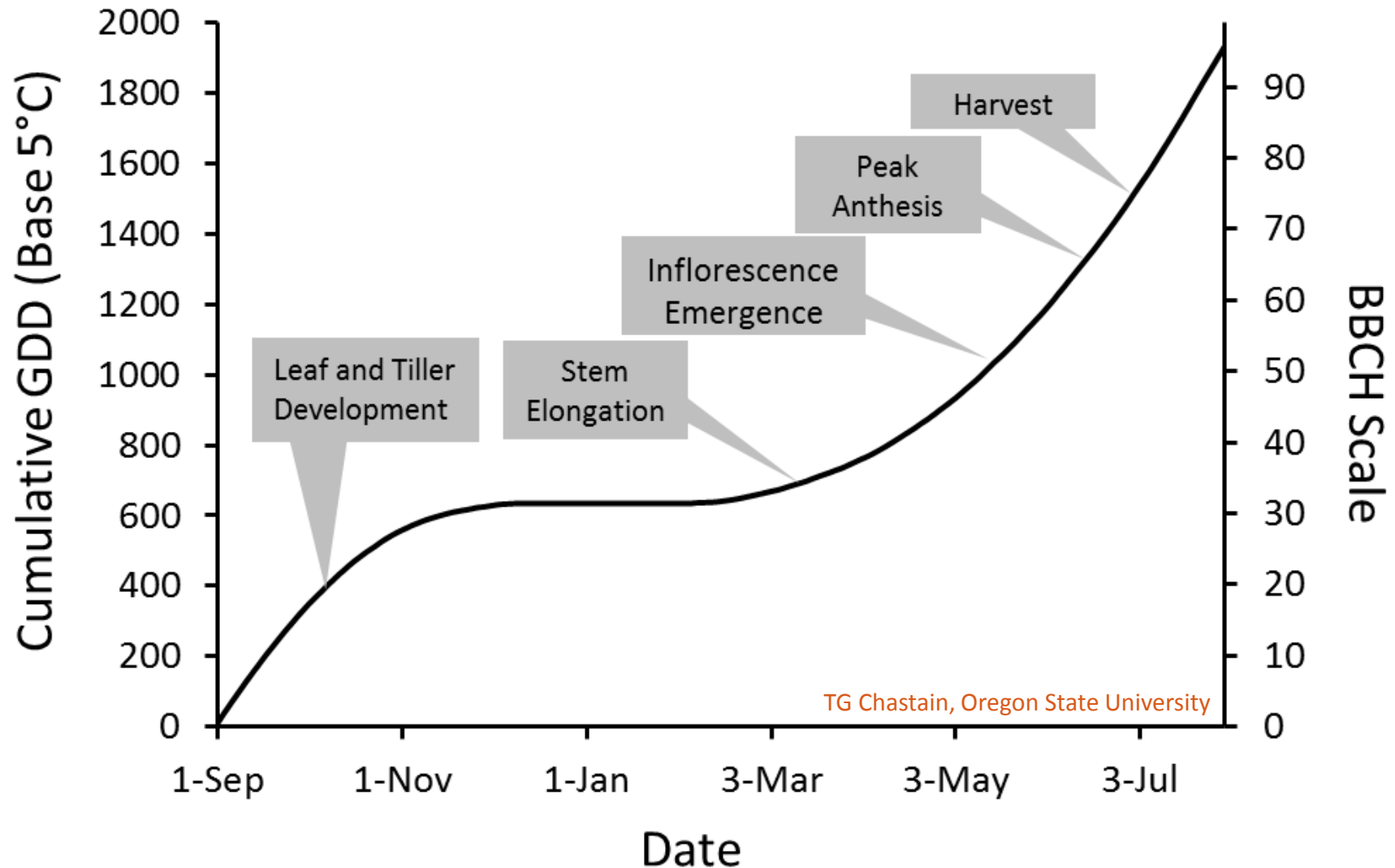


Launceston
Tasmania



Climate and Seed Production

Developmental stages of grass seed crops in relation to GDD from September 1st in Oregon



Soils and Seed Production

Flood plains – 29% of the area

- Many crop choices, widespread irrigation.
- High productivity soils with good drainage - vegetable, sugarbeet, grass, legume seed crops and many more.

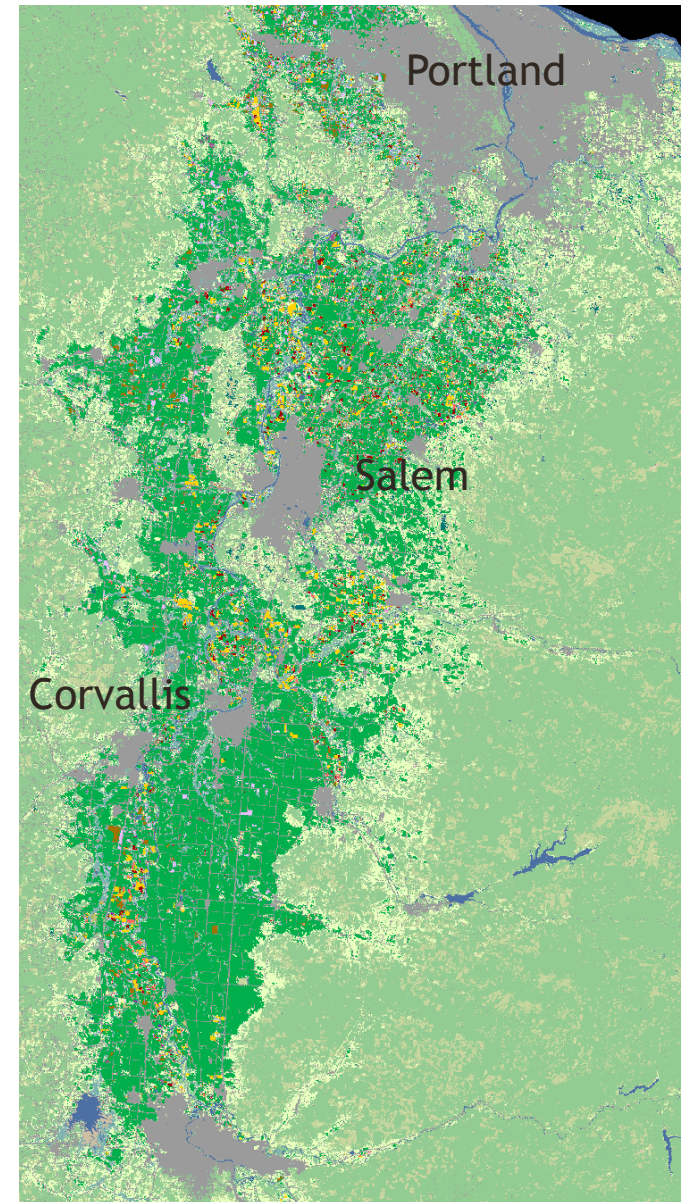
Alluvial terraces – 42% of the area

- Few crop choices, limited irrigation.
- High productivity soils – wheat, perennial ryegrass, tall fescue and legume seed crops.
- Low productivity soils - annual ryegrass without drainage.

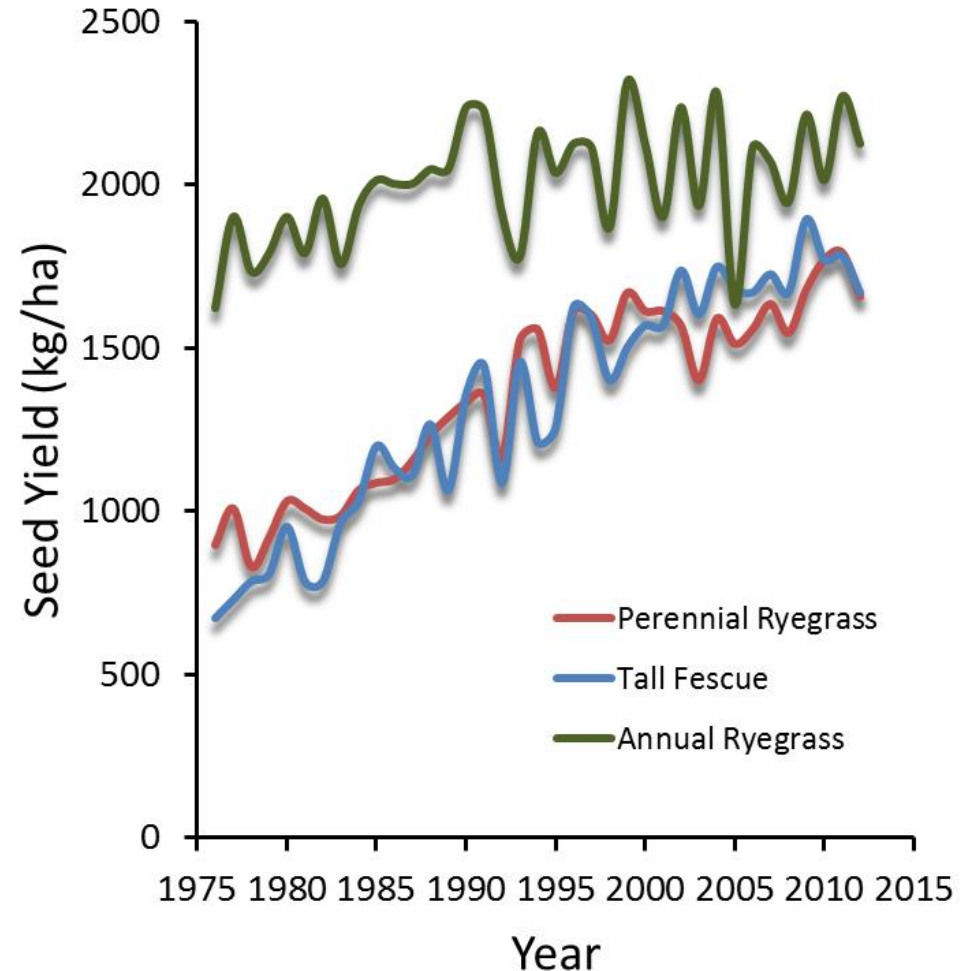
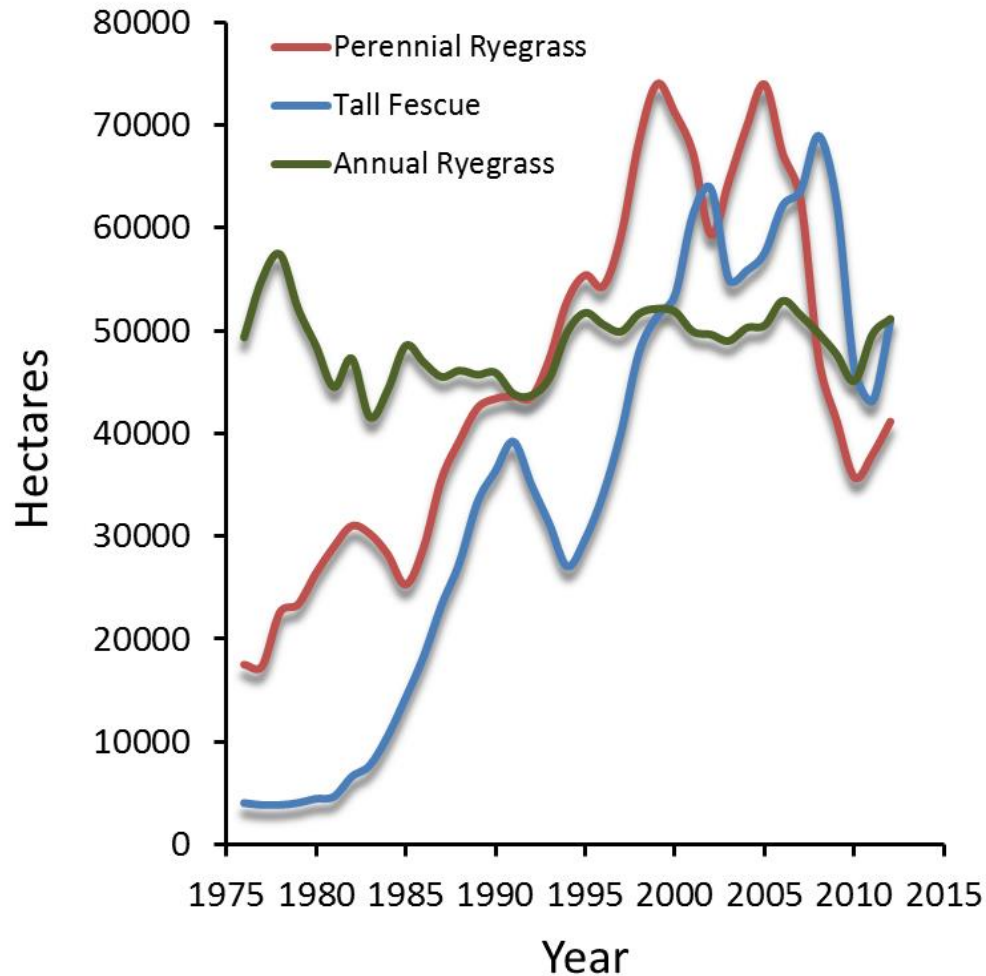
Hill soils – 29% of the area

- Fewest crop choices, very little irrigation.
- Grass seed crops on low to intermediate productivity soils with moderate to high erosion hazards.

Willamette Valley Satellite Crop Image

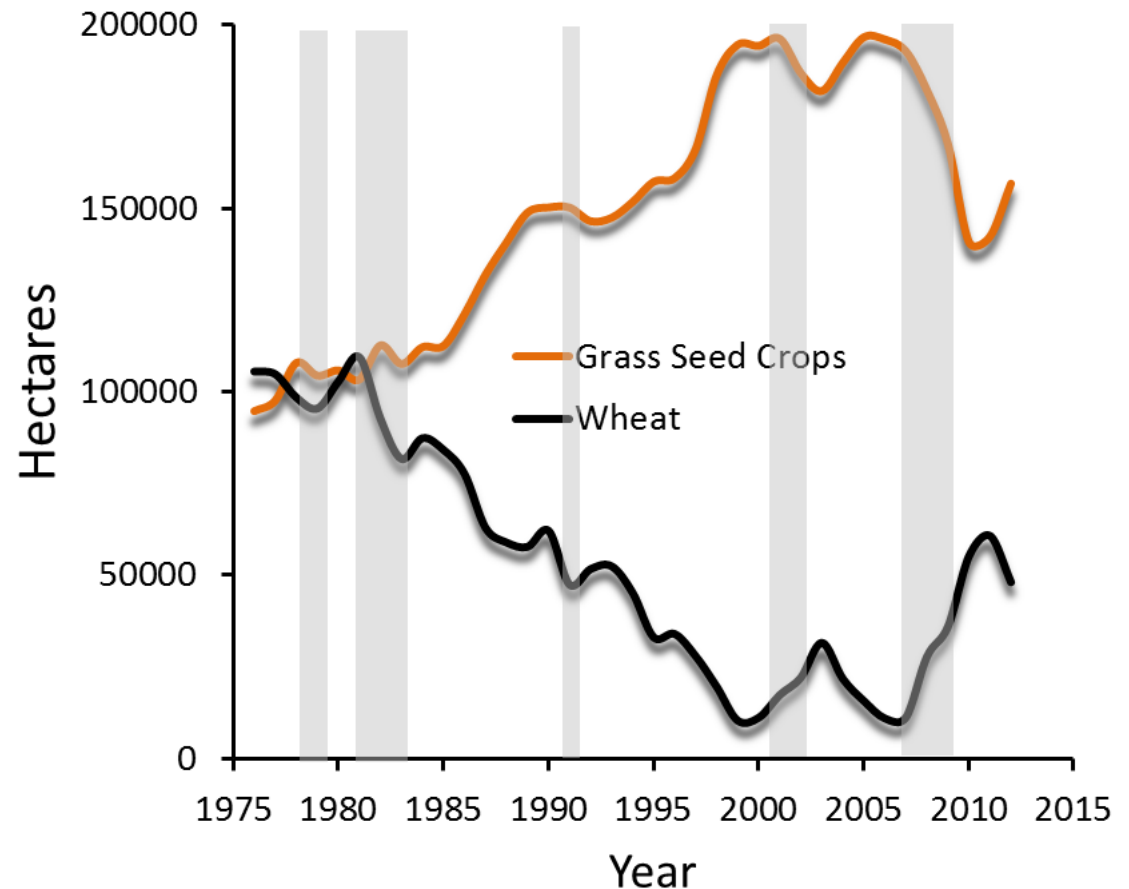


Trends in grass seed production in Oregon's Willamette Valley



Trends in grass seed production in Oregon's Willamette Valley

- Willamette Valley grass seed crop acreage is sensitive to economic conditions (economic recessions marked by gray bars).
- Since the early 1980s, the rise in grass seed crop acreage was mirrored by a simultaneous fall in wheat acreage and vice versa.
- When market prices favor wheat over perennial ryegrass and tall fescue, these crops are replaced by wheat since both crops are produced on the same soils.



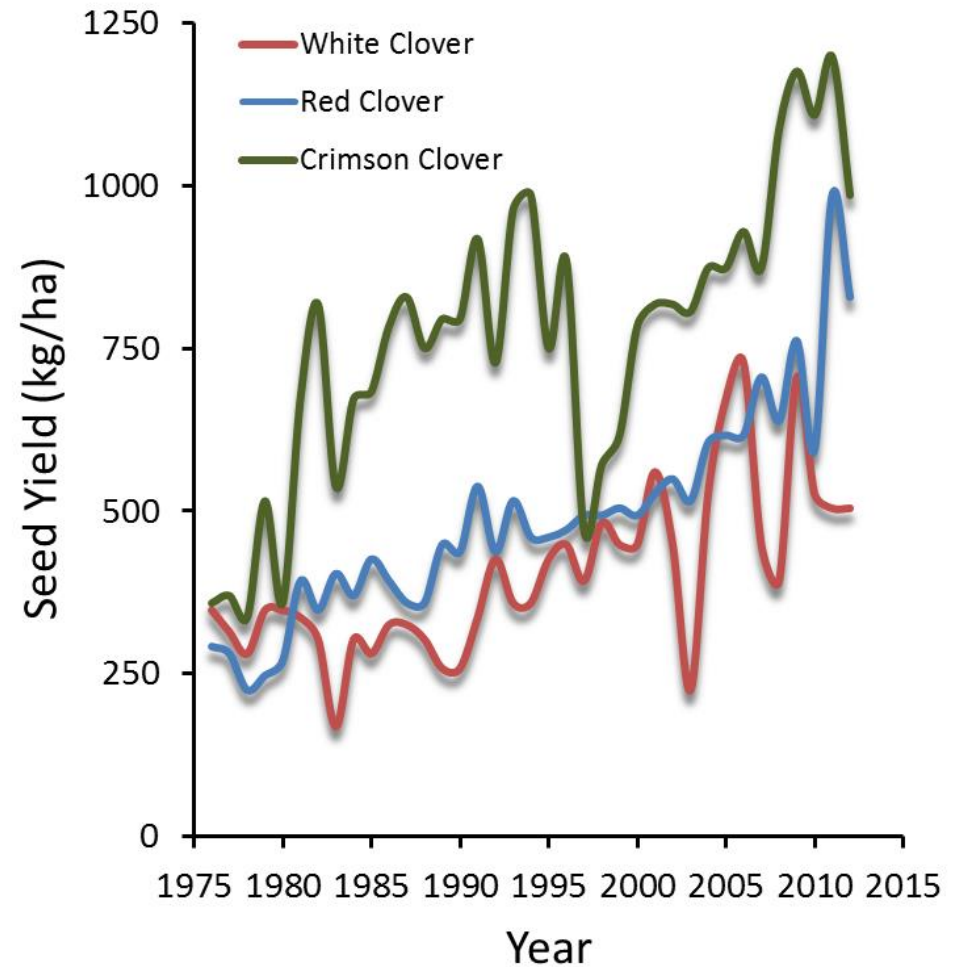
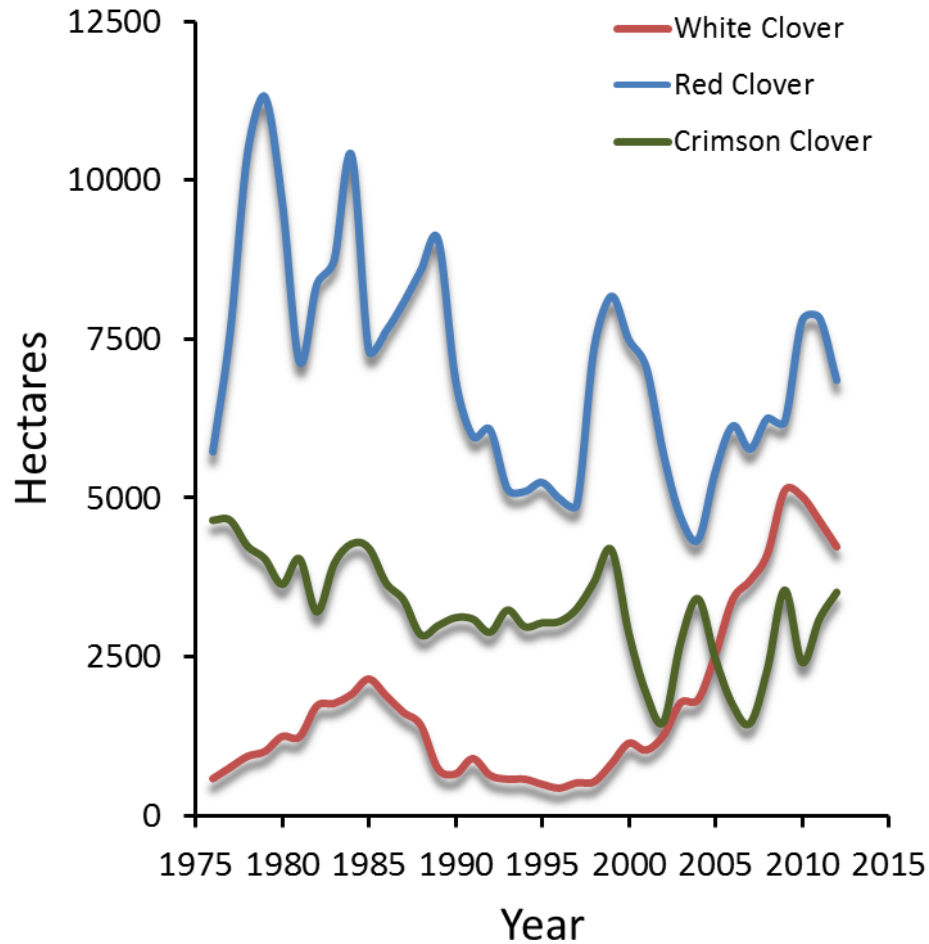
Oregon Grass Seed Crop Acreage and Value*

Crop	Hectares	Farm Gate Value (\$ USD millions)
Annual Ryegrass	51008	78
Perennial Ryegrass	42408	133
Tall Fescue	54504	148
Kentucky Bluegrass	4844	17
Rough Bluegrass	850	3
Cocksfoot	5395	11
Chewings Fescue	3347	11
Red Fescue	3007	9
Hard Fescue	970	2
Colonial Bentgrass	951	2
Creeping Bentgrass	955	5
Total	168319	418

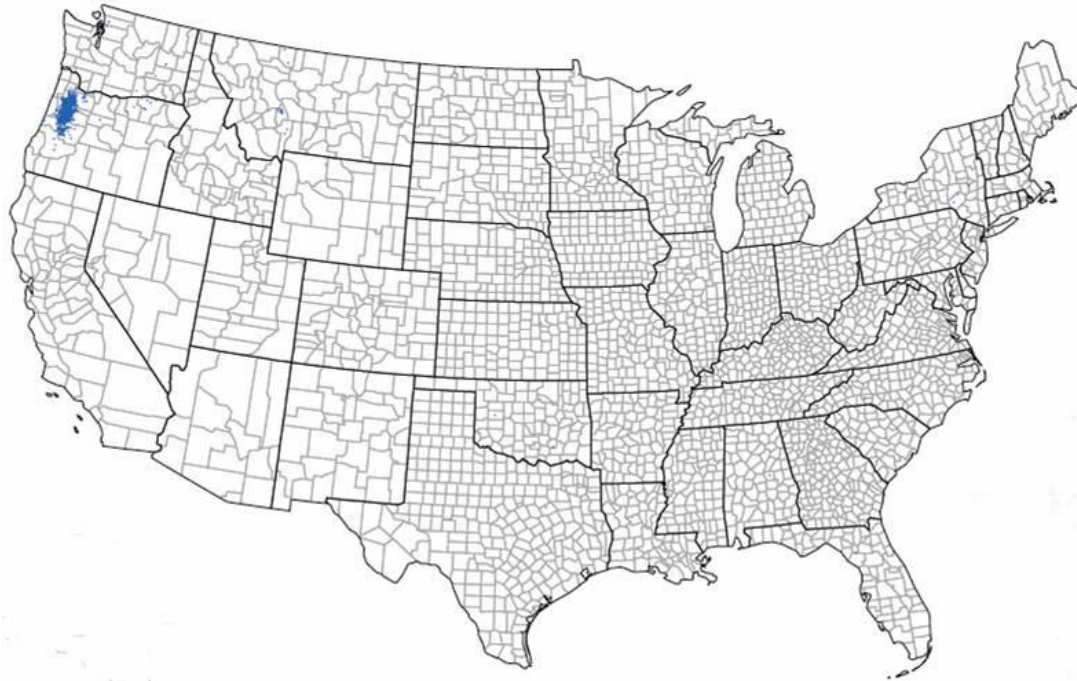


*2013 Crop Year

Trends in legume seed production in Oregon's Willamette Valley



Oregon's Rank in US Seed Production

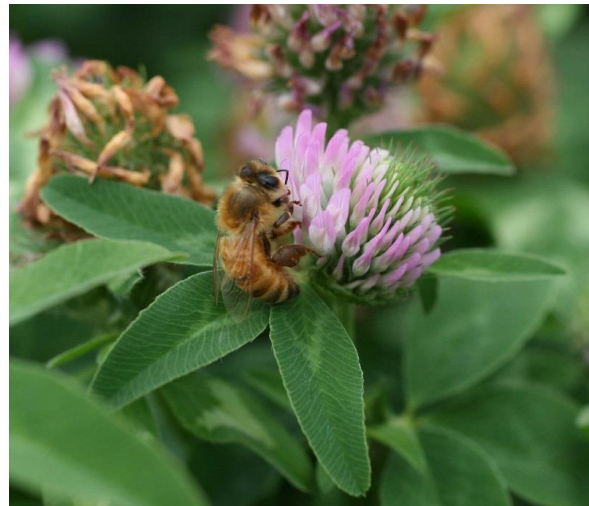


US Ryegrass Seed Acreage

Seed Crop	Oregon's Rank in US
Perennial Ryegrass	1
Annual Ryegrass	1
Tall Fescue	1
Orchardgrass (Cocksfoot)	1
Sugarbeet	1
Red clover	1
Crimson clover	1
Kentucky bluegrass	3
Alfalfa (Lucerne)	8

The Future

- Oregon's seed production industry has been particularly adept at crafting solutions to vexing problems.
- The continued success of Oregon's seed industry will be predicated on its ability to recognize new opportunities and to successfully address present and future problems.



Oregon grass seed farm (top), red clover seed crop (left)(TG Chastain photos)