

*Background on*  
**Oregon's  
Grass and  
Legume  
Seed  
Industry**

*Just* 57059

Reed = 9-19-90

New Count: 2,790-4

Shelf Count date = 9-19-90  
= ~~0~~

Last Inv Date: 9-15-90  
= 15494

Initial: mp

9-20-90



**OREGON STATE UNIVERSITY  
EXTENSION SERVICE**

**Background on Oregon's Grass and Legume Seed Industry**  
S.D. Miles and W.C. Young

**The grass seed industry and the economy**

Grass and legume seeds produced in Oregon are an important component of the State's economy. Producing 40 to 50% of the Nation's grass and legume seeds, Oregon growers have rung up \$210-230 million in farmgate sales in recent years (see table 1).

These sales are especially important to those producing these commodities—but the importance of their production doesn't stop at the point of initial sale.

As the money from these initial sales flows through the economy, in successive rounds of spending, additional income is generated and the impact is magnified.

**Oregon seeds dominate national production**

The superior quality of Oregon-grown seeds has made them famous throughout the world. Oregon has more than 450,000 acres in seed production, and over 80% of these acres produce seeds for which Oregon's growers are the Nation's leading producers. The bulk of Oregon's seed production comes from grass seeds produced in the Willamette Valley.

**Grass seeds dominate Oregon production**

More than 400,000 acres in Oregon are used for *grass* seed production. Sales from these acres equals almost \$200 mil-

Stanley D. Miles, Extension agricultural economist, and William C. Young, Extension agronomist for seed crops, Oregon State University.

Table 1.—Seed acreage and sales in Oregon, 1989

Commodity	Acres	Value (x \$1000)
Annual ryegrass	112,000	43,420
Perennial ryegrass	106,000	59,020
Tall fescue	85,000	42,980
Kentucky bluegrass	30,800	13,460
Fine-leaf fescue	27,900	12,510
Orchardgrass	22,400	9,180
Bentgrass	14,000	15,650
Other grasses	12,380	3,060
Red clover	24,230	7,990
Alfalfa	10,000	5,760
Crimson clover	7,400	2,930
Other legumes	5,890	1,700
Total	458,000	217,660

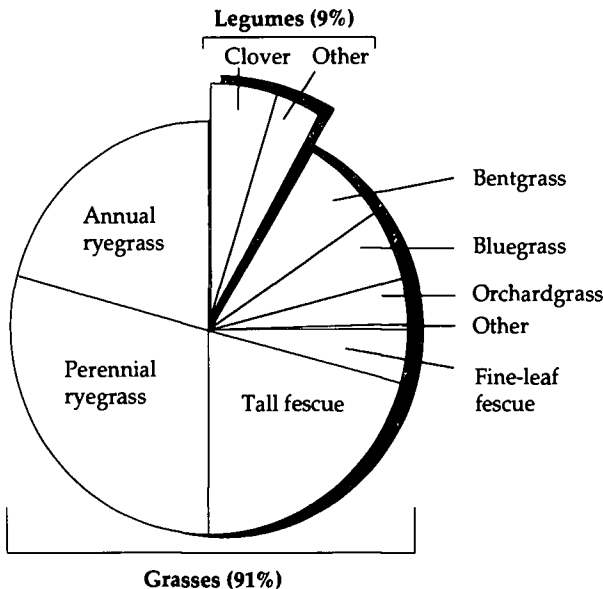


Figure 1.—Proportion of Oregon seed sales by species, 1989

lion, more than 90% of total seed sales. The remaining \$18-20 million is derived from *legume* seed production (see figure 1).

An abundance of winter and spring moisture, combined with dry summers, provides ideal conditions for grass seed production in the Willamette Valley. Comparable yields and quality of seed are rare in other parts of the world.

**Willamette Valley growers sell most of the seed**

Here are some facts about the \$210-230 million realized annually from sales of Oregon-grown grasses and legumes to other States and foreign countries:

- Nearly 91% of these sales come from grass seed.
- 90% of seed sales come from Willamette Valley production, where climatic conditions favor concentration of commercial seed production.
- 38% of the State's seed sales come from Linn County.

**Processing adds value.**

Cleaning, sacking, storing, and handling added about 21%, or \$45 million, to the value of the 1989 crop. Blending and small packaging of grass seeds has been increasing within Oregon in recent years.

**Property taxes**

Real property taxes accruing to land in seed crops totaled about \$4.1 million in 1989—and of this amount, we can attribute more than \$3.6 million to grass seed land.

Other tax dollars derived from seed growers haven't been estimated, but they're a significant contribution to the tax base of Oregon.

**Staying competitive**

Because of increasing costs of production and the threat of competition from other domestic and foreign production areas, Oregon's seed producers must employ the most modern cultural methods along with sound management practices in order to stay competitive. Yields and seed quality must be high to make seed production profitable enough for individual operations to stay in business.

**Proprietary protection program**

Since the establishment of the Plant Variety Protection Act in 1970, private plant breeders have a proprietary protection program that grants exclusive right to produce and market seed of sexually reproduced plants for 18 years.

This has encouraged dramatic progress in the genetic improvement of a number of cool-season grasses, particularly those cultivars used for turf. As a result, the demand for turf-type proprietary varieties has increased markedly during the past 10 years.

The combined higher market price and higher yields of some new varieties have contributed to an expanded total acreage of grass seed crops.

**Production practices are changing**

Although the Willamette Valley is ideal for grass seed production, disease problems limited the growth of the industry during its infancy. Open-field burning was developed as a solution to disease problems, and it has continued to keep incidence of disease at low levels. However, the

threat of seed-borne diseases (ergot, blind seed, and seed gall nematode) remains a concern today.

Public concern over air pollution from smoke during the field burning season in the Willamette Valley has resulted in some restriction on field burning, and it may further reduce the number of acres burned.

Open-field burning has declined from a 1968 high of 315,000 acres (including some grain acreage) to 165,000 acres in 1989. Over this same time period, total acreage of grass seed crops in the valley has increased by over 130,000 acres, from 240,000 in 1968 to 370,000 in 1989.

To make these adjustments, some seed growers have invested heavily in straw-handling equipment to remove residue from fields, for sale or disposal by stack burning.

Many producers use propane flammers to sanitize grass seed fields. Others are using alternative nonthermal methods to deal with unburned acreage.

## **Species highlights**

**Ryegrass.** Oregon's Willamette Valley produces nearly all the ryegrass seed grown in the United States. This seventh-ranked Oregon agricultural crop is well adapted to poorly drained soils on which alternative crops are very limited. Sales of ryegrass seed amount to \$100 million in recent years. Close to half the value of the Nation's ryegrass seed is grown in Linn County.

Annual ryegrass seed, over 60% of all ryegrass seed production, is used to a great extent in the South for winter overseeding of lawns, pastures, and rice and cotton fields.

Perennial ryegrass acreage has increased greatly in the past 5 years, from 62,000 acres in 1985 to 105,000 acres in 1989. The reasons are proprietary development and improved turf-type varieties. Nearly all the seed is used in central and eastern States for turf seeding.

**Bentgrass.** Oregon produces nearly all the bentgrass seed grown in the United States. Predominantly a Willamette Valley crop, bentgrass seed is exported in large quantities to Europe and also to the central and northern States for use in turf mixtures. This grass is widely used on golf courses throughout the world.

**Chewings fescue.** Nearly all of the Nation's chewings fescue seed is grown in Oregon's Willamette Valley. Like bentgrass, it's exported to Europe and used there—as well as in the United States—in turf mixtures.

**Red fescue.** Oregon has been producing almost all the red fescue seed grown in the United States. Used much like bentgrass and chewings fescue, red fescue is exported in somewhat smaller quantities.

**Tall fescue.** Acreage has increased greatly in recent years, from 10,000 acres in 1979 to 85,000 acres in 1989, because of the increased demand for improved turf-type proprietary varieties. In addition, it remains a popular pasture grass throughout the "transition zone" between Northern cool-season grass species and warm-season Southern species.

**Kentucky bluegrass.** Over 80% of the Nation's bluegrass seed is produced in the Northwest. Widely used as a turf grass in the cooler climates, bluegrass is also used for many lawns in our cities

and rural communities. Bluegrass is also exported, though in smaller quantities than bentgrass and chewings fescue.

**Orchardgrass.** This grass is used in the Northern States for pastures and grass hay. Oregon has recently become the Nation's leading producer of orchardgrass seed, with more strains than any other State.



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