



FENN Austrian Winter Pea

G. A. Murray

A. E. Slinkard

Austrian winter peas were introduced into Idaho in 1938. Seed at that time was a mixture of sizes, shapes, and colors. The plants also varied in many characteristics including size, earliness of flowering, disease resistance, and seed production. The seed was known as Common seed and was used as animal feed, for planting in the southern United States as a green manure crop, or for replanting in northern Idaho.

Today, the single most important use of Austrian winter peas is for *An Paste* in Japan. This product is a sweet, high protein filling used in pastries and on crackers or cookies. Approximately 80 percent of the Austrian winter peas produced each year are exported to Japan for this purpose.

In 1965, the Idaho Pea and Lentil Commission was formed. One of its earliest activities was support of an Austrian winter pea research program conducted by University of Idaho plant scientists.

A new variety of winter peas, Fenn, is one product of this research program. The experimental work has also led to improved cultural practices for increased seed production. Other research indicates that Austrian winter peas have excellent potential as a cheap source of high quality protein for livestock and human consumption and that the crop may be used in silage production, alone or in combination with grain.

Fenn: Characteristics

Fenn Austrian winter pea is a pure-line selection from Common Austrian winter pea. It was named for the community of Fenn which is close to the experimental farm where the variety was developed.

Fenn Austrian winter pea is characterized by yellow cotyledons, speckled seed coat, purple blossoms, an indeterminate flowering habit and an abundance of triple flow-

ers per node. Winter-hardiness and vine length of Fenn are comparable to Common. It is moderately resistant to *Ascochyta* species found in northern Idaho but is not resistant to *Sclerotinia* species. Seed of Fenn is larger and more uniform in size and seed coat color than Common.

Adaptation

Fenn is adapted to the major Austrian winter pea-producing areas of northern Idaho. This includes Latah, Lewis, Clearwater, Nezperce, and Idaho counties. Like Common, Fenn will not grow well in poorly drained locations.

The Austrian winter pea field research plots operated by the University in Idaho County.



THE AUTHORS — Dr. G. A. Murray is associate professor of plant science, Department of Plant and Soil Sciences, University of Idaho. Dr. A. E. Slinkard, a former Idaho faculty member, is now senior research scientist, University of Saskatchewan, Saskatoon, Canada.

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TABLE 1. Yield, protein and seed weight of Fenn and Common Austrian winter peas grown near Grangeville in 1970, 1971 and 1972.

Variety	Yield (lb. per acre)				Protein (%)				Seed weight (grams/100 seed)			
	1970	1971	1972	Avg	1970	1971	1972	Avg	1970	1971	1972	Avg
Fenn	2018	1237	3456	2237	28.4	27.9	27.9	28.1	11.4	11.0	12.4	11.6
Common	1800	1207	3331	2113	26.2	28.8	28.3	27.8	10.4	10.7	11.5	10.9

Performance

Yield trials have been planted at Grangeville for 3 years. In these trials, Fenn has outyielded Common by an average of 124 pounds per acre (Table 1). Fenn also has larger seed and a slightly higher protein content than Common. In a trial near Gifford, Fenn outyielded Common by 343 pounds per acre and had higher protein levels (Table 2).

Cultural Practices

Rate and Date of Seeding -- Seeding rates of Fenn vary with class of seed being planted, seedbed preparation, and date of seeding. Breeder, Foundation, and Registered seed

TABLE 2. Yield and protein of Fenn and Common Austrian winter peas grown near Gifford in 1972.

Variety	Yield (lb per acre)	Protein (%)
Fenn	2700	24.5
Common	2357	24.1

should be planted at 40 pounds per acre. Certified and common seed should be planted at 60 pounds per acre. However, if seedbeds are rough or if heavy stubble is on the soil surface, Breeder, Foundation, and Registered seed should be planted at 60 pounds per acre and Certified or common seed at 90 pounds per acre.

Fenn should be seeded between September 1 and 15. On recrop ground in dry falls, seeding should be delayed until a moderately cloddy seedbed can be prepared. Increase the seeding rate by 1 pound per acre for each day seeding is delayed after September 15.

Row Spacing and Depth of Seeding -- Row spacing should be 6 to 7 inches except for Breeder, Foundation, or Registered seed which should be planted in rows 12 to 14 inches apart.

Depth of seeding should be about 2 inches. Placement of seed on the soil surface should be avoided. This can happen when heavy stubble is lightly disced and then drilled.