

# Plants for Solving Resource Problems

## RICHFIELD SELECTION FIRECRACKER PENSTEMON

**S**pecies: *Penstemon eatonii*  
 Common Name: Firecracker  
 Penstemon  
 Plant Symbol: PEEA  
 Accession Number: 9008469

**Source:** Seed was collected approximately 14 miles southeast of Richfield, Sevier County, Utah in August, 1974. The collection site is approximately 6,600 feet elevation on an upland gravelly loam in a 12 to 14 inch precipitation zone. Plants growing in association include sagebrush, globe mallow and Indian ricegrass.

**Native Site Information:** This plant is native to the western United States and is adapted to sagebrush-juniper zones at 3,300 to 8,000 feet elevation in 10 to 16 inch rainfall areas.

**Method of Selection:** Selected from a collection of 119 penstemon accessions assembled and evaluated at the Aberdeen Plant Materials Center from 1981 to 1985. There were 15 firecracker penstemon accessions in the assembly. The Richfield Selection was selected for its beauty, hardiness, seed production and natural range of adaptability. This accession had the best stand establishment and longest survival, and shows great promise for use throughout its range of adaptation.

**Description:** *Penstemon eatonii* is an erect, short-lived perennial, cool season forb. It has a fibrous root system and the stems are often decumbent or reclining. The leaves are large and slightly pubescent. The flowers are in racemes on 24 to 36 inch tall upright



**Firecracker Penstemon**

stems. Firecracker penstemon has bright red tubular flowers, blooming in mid-summer through early fall.

**Use:** The potential uses of the Richfield Selection of Firecracker penstemon are erosion control, diversity and beautification. Its fibrous root system and wide canopy cover make it an excellent plant for soil stabilization. The tall erect flower stems with numerous, large colorful flowers also make it a desirable forb for beautification.

**Insect and Disease Problems:** Firecracker penstemon is susceptible to soil-borne fusarium and rhizoctonia root rot which can be severe in poorly drained loam and clay textured soils. There are no known insect problems.

**Environmental Considerations:** This selected release is from a species native to the Intermountain West and has no known negative impacts on wild or domestic animals. Firecracker penstemon is not considered a weedy or invasive species but can spread to adjoining vegetative communities under ideal environmental conditions. It co-exists with other native species and adds biodiversity to those plant communities.

**Potential Area of Adaptation:** The range of adaptation is the sagebrush, juniper, and ponderosa pine zones at 3,300 to 8,000 feet elevation in 10 to 16 inch rainfall areas. Firecracker penstemon can survive in full sunlight, but may not tolerate hot, dry areas. It can survive cold winter temperatures found in the northern portion of its range if the snow is deep enough to cover the plant. It does not grow well in areas with poor drainage.

**Potential Soil Adaptation:** Shallow rocky, loams, sandy loams, gravelly loams, well-drained to moderately well-drained soils.

**Planting and Harvesting:** Firecracker penstemon may be seeded with a drill or broadcast planted in late fall and then covered to a depth of 1/8 to 1/4 inches into a firm seedbed. The full seeding rate is 3 pounds Pure Live Seed (PLS) per acre. When used as a component of a seed mix, adjust to the percent of mix desired. For seed production, Firecracker penstemon should be planted at a rate of 1.3 pounds PLS per acre in 36 inch rows to allow mechanical weed control. The use of weed barrier fabric is an alternative to allow closer spacing and facilitate weed control. Firecracker penstemon should be seeded in late fall or early winter to allow the seed to stratify. Germination can occur over several growing seasons.

Seed is harvested by hand stripping or with a combine. Flowering is indeterminate with mature capsules and flowers present at harvest period. Seed is mature when capsules are dry and seed is hard. Multiple harvest periods by hand may be necessary to maximize seed collection. Some seed will shatter as capsules dry and open. Seed can be separated from the capsule with a hammermill or barley debearder followed by air-screening. Seed should be stored in a cool, dry area to maintain viability.

**Seed Maintenance:** G0 and G1 seed is maintained at:

USDA-NRCS, Aberdeen PMC  
P.O. Box 296  
1691A S. 2700 W.  
Aberdeen, ID 83210  
Phone: (208) 397-4133

G1 seed is available through the University of Idaho Foundation Seed Program, Utah Crop Improvement Association and Soil Conservation Districts in Idaho, Utah and Nevada. Growers may produce one generation each of G2 and G3 seed.

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