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disarticulation is preferred for seed harvest because intact spikes may remain trapped within the crop canopy rather than settling to the ground.

Fish Creek was compared with other accessions keying to *E. elymoides* subsp. *elymoides*, along with *E. elymoides* subsp. *brevifolius* and *E. multisetus* accessions (Jones et al., 2003). Fish Creek ranked first for rate of emergence among 10 accessions in a greenhouse trial. Fish Creek ranked last for heading date, second for plant height, and fourth for seed mass among 12 accessions at Evans Farm. Compared with Toe Jam Creek germplasm; Fish Creek is less glaucous, and its awns are less purple.

The intended area of use is the Upper Snake River Plain of Idaho and the northern Great Basin of Oregon, Idaho, and Nevada. It may be used for rangeland restoration, rehabilitation, or reclamation.

Fish Creek G1 seed produced at Evans Farm was used to establish a seed-increase block in the spring of 1998 at Evans Farm, from which G2 seed was harvested beginning in 1999. Seed of the G2 generation will be maintained by the USDA-ARS Forage and Range Research Laboratory, Logan, UT, and will be made available to growers for production of G3 to G5 seed by the Utah Crop Improvement Association. Seed through the G5 generation will be eligible for certification, but sale of Fish Creek seed beyond the G5 generation is expressly prohibited. Small quantities of seed will be provided to researchers upon request to the corresponding author. Appropriate recognition should be made if this material contributes to the development of a new breeding line or cultivar.

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Registration of Toe Jam Creek Bottlebrush Squirreltail Germplasm

Toe Jam Creek bottlebrush squirreltail [*Elymus elymoides* subsp. *californicus*] germplasm (Reg. no. GP-89, PI 531604) was released 4 Sept. 2003 as a selected class, natural-track, pre-variety germplasm. This class of pre-variety germplasm is eligible for seed certification under guidelines developed by the Association of Seed Certifying Agencies (2001, p. 1-12 to 1-14, 2-69 to 2-72.; Young et al., 2003). Natural-track designation is merited because no intentional selection was practiced on this material. Participating in the release were the USDA-ARS, the Utah Agricultural Experiment Station, the USDA-NRCS, and the USDOI-Bureau of Land Management. Toe Jam Creek germplasm was tested under the designations D-2986 and Acc:1104c.

According to Wilson (1963), Toe Jam Creek keys to *E. elymoides* subsp. *californicus* [= *Sitanion hystrix* (Nutt.) J.G. Sm. var. *californicus*], while Fish Creek germplasm (Jones et al., 2004) keys to *E. elymoides* subsp. *elymoides* [= *S. hystrix* (Nutt.) J.G. Sm. var. *hystrix*]. Sand Hollow germplasm (Jones et al., 1998) keys to *E. multisetus* J.G. Smith (M.E. Jones) (= *S. jubatum* J.G. Smith), that is, big squirreltail (Barkworth et al., 1983; Barkworth, 1997). The squirreltails are self-pollinating (Jensen et al., 1990).

Toe Jam Creek was collected in northwestern Elko County, NV, approximately 13 km west of Tuscarora by J. Garrison [USDA-SCS (NRCS)]. The collection site is classified by the USDA-NRCS (USDA, 1981) as Major Land Resource Area D25 (Owyhee High Plateau), by the USDA-Forest Service (Bailey, 1995) as Province 342 (Intermountain Semi-Desert), and by the USEPA (2002) as Level III Ecoregion 80 (Northern Basin and Range). Elevation at the site is 1829 m, winterhardiness zone is 5b, and average annual precipitation is 312 mm.

Awn removal without resultant seed damage has been problematic in Sand Hollow big squirreltail germplasm. A less robust awn makes the seed more amenable to debearding. Mass of the proximal centimeter of the awn for Toe Jam Creek was 0.266 mg at Evans Farm, Millville, UT in 2001, 34% lower than Sand Hollow. Awn mass of Toe Jam Creek was not significantly different from Fish Creek bottlebrush squirreltail germplasm at North Park Farm, North Logan, UT, in 2001 or 2002. Therefore, seed damage of Toe Jam Creek resulting from conditioning is expected to be similar to Fish Creek and much lesser than for Sand Hollow.

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Toe Jam Creek was compared with 26 other *E. elymoides* and *E. multisetus* accessions from California, Nevada, Oregon, Washington, Idaho, Montana, Wyoming, and Colorado, none of which keyed to *E. elymoides* subsp. *californicus*, in a greenhouse trial and a field trial at Greenville Farm, North Logan, UT (Jones et al., 2003). Heading date of Toe Jam Creek was similar to the mean of 17 *E. elymoides* subsp. *elymoides* accessions (Jones et al., 2003). However, Toe Jam Creek ranked earlier than Fish Creek germplasm, which ranked earlier than Sand Hollow germplasm. Toe Jam Creek ranked higher for seed mass than any of the 17 accessions. Rachises of Toe Jam Creek disarticulate indeterminately at each node, while rachises of Fish Creek disarticulate determinately at the base of the spike. Toe Jam Creek exhibits later spring green-up than Fish Creek. Compared with Fish Creek, Toe Jam Creek is more glaucous and its awns are more purple.

The intended area of use for Toe Jam Creek is the Great Basin of Nevada, Oregon, Idaho, and Utah and the Lower Snake River Plain of Idaho. It may be used for rangeland restoration, rehabilitation, or reclamation.

Generation 2 (G2) seed harvested from the Greenville Farm field trial at North Logan, UT, was used to establish a seed increase at Evans Farm, Millville, UT, in the spring of 2000, from which G3 seed was harvested beginning in 2001. Seed of the G3 generation will be maintained by the USDA-ARS Forage and Range Research Laboratory, Logan, UT, and will be made available to growers by the Utah Crop Improvement Association. Seed through the G6 generation will be eligible for certification, but sale of Toe Jam Creek seed beyond the G6 generation is expressly prohibited. Small quantities of seed will be provided to researchers on request to the corresponding author. Appropriate recognition should be made if this material contributes to the development of a new breeding line or cultivar.

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Registration of Ascochyta Blight and Fusarium Wilt Resistant CA2954 Kabuli Chickpea Germplasm

Kabuli chickpea (*Cicer arietinum* L.) germplasm line CA2954 (Reg. no. GP-236, PI 634334) of semierect growth habit was developed at CIFA (Centro de Investigación y Formación Agraria), Córdoba, Spain, in collaboration with the Department of Genetics, University of Córdoba.

CA2954 was derived from the cross ICCL81001/CA2156// ILC72. Fusarium wilt [caused by *Fusarium oxysporum* Schlechtend.:Fr. f. sp. *ciceris* (*Foc*) (Padwick) Matuo & K. Sato] resistant kabuli germplasm line ICCL81001 was developed at ICRISAT (International Crops Research Institute for the Semi-Arid Tropics) (Kumar and Haware, 1983). CA2156 is a very large-seeded kabuli landrace from Spain. ILC72 is also a kabuli germplasm line with resistance to Ascochyta blight [caused by *Ascochyta rabiei* (Pass.) Labrousse; syn. *Phoma rabiei* (Pass.) Khune & J.N. Kapoor] (Nene, 1984; Singh and Reddy, 1996). ILC72 was provided by ICARDA (International Center for Agricultural Research in Dry Areas), and it has an erect growth habit.

The $F_{2:3}$ to $F_{6:7}$ were evaluated for Ascochyta blight in the field. A set of $F_{6:7}$ lines resistant to Ascohyta blight were evaluated for Fusarium wilt in the field. Among the wilt resistant lines, CA2954 was selected for its good overall performance and early flowering. Subsequently, CA2954 was tested for its reaction to *Foc* Race 5 under controlled conditions (Tullu et al., 1998) at Córdoba, and for Race 0 in the field at Beja (INRAT; Institut National de la Recherche Agronomique de Tunisie) in 1999 and 2001. CA2954 was resistant to both races.

The average yield of CA2954 in five trials conducted between 1999 and 2003 was 1991 kg ha^{-1} compared with 1884 kg ha^{-1} for 'Pringao'. One hundred seeds of CA2954 weigh 32 g compared with 37.7 g for 'Pringao'.

Moreover, CA2954 shows split seeds after harvesting, a disadvantage for human consumption in Spain where the whole seeds are used in different dishes. For this reason, CA2954 will be released as 'Zoco' for animal feed.

Breeder seed of CA2954 will be maintained at CIFA. Small