

marginal clumps. A few clumps were also planted out on a much higher and firmer piece of bare mud-flat, but these did not survive. A specimen of *S. stricta* that had been kindly sent out by Professor Oliver, and which arrived in very fair condition, was also planted out in the softer mud. This unfortunately was washed out by the scour before it had established itself. In their new situation the three short-leaved clumps grew luxuriantly, while those that replaced them in the main patch gradually lost vigour and became indistinguishable from the surrounding growth.

In the main patch are two or three small bunches closely resembling the bunch that I have suggested may be *S. stricta*. These were noticed in 1923, and have increased very little in area since that date. They are at once distinguished from the rest of the patch by the almost erect, rolled-up leaves. They have flowered this season, and, as the following table shows, possess characters closely approximating to those of *S. stricta*. A difficulty that has been felt as to the hypothesis that *S. Townsendii* is really a first cross between *S. stricta* and *S. Townsendii* is that the seedlings of the latter show no evidence of segregation. This is surprising if, as Oliver ("*Spartina Problems*," *Annals of Applied Biology*, vol. 7, 1920, p. 29) says, "as seem almost certain, it is largely propagated and spread by seed." While non-segregation does not absolutely preclude the possibility of *S. Townsendii* being a first-cross hybrid, such cases are quite uncommon. The clumps here discussed certainly suggest strongly that segregation may occur to a greater extent than has been suspected. The offspring more closely approximating to *S. stricta* would tend to be crowded out and suppressed by those more closely approximating to *S. Townsendii*, unless, as in the Foxton patch, the growth of *S. Townsendii* is checked for any reason. It is impossible to say whether these *stricta*-like bunches are seedlings from the *Townsendii* or are the original clumps planted as *S. stricta*. Certainly in the vegetative state there is little to differentiate them from *S. stricta*.

	<i>S. stricta</i> (Herbarium Specimens).	Suspected Segregate from <i>S. Townsendii</i> at Foxton.	<i>S. Townsendii</i> at Foxton.
Culms .. ..	± 45 cm. long	± 55 cm. long, close together	± 70 cm. long, more distant.
Leaf-blades ..	± 20 cm. long, ± 5 mm. wide at base; coriaceous, strict, erect, convolute, pungent-pointed, polished	± 20 cm. long, ± 7 mm. wide at base; coriaceous, strict, ascending at a narrow angle, convolute, terete in outline, pungent-pointed, polished	± 25 cm. long, ± 9 mm. wide at base; less coriaceous, ascending at wider angle, drooping at tips, flat or very slightly inrolled, subpungent, hardly shining.
Panicle .. ..	± 15 cm. of 2 to 3 spikes, ± 6 cm. long	± 15 cm. of 2 spikes, ± 12 cm. long	± 30 cm. of 4 to 9 spikes, ± 17 cm. long.
Lower glume ..	± 15 mm. long, linear, acuminate, very silky—hairy	± 15 mm. long, linear, acuminate, silky—hairy	± 12 mm. long, linear, obtuse to subacute, less silky—hairy.
Upper glume ..	± 20 mm. long, linear—lanceolate, bifid, awn-tipped, keel scabrid	± 20 mm. long, linear—lanceolate, bifid, awn-tipped or nearly awnless, keel somewhat scabrid	± 18 mm. long, narrow—lanceolate, not bifid, acute to almost acuminate, awnless, hardly at all scabrid.
Rachis .. ..	Just protruding beyond last spikelet	Protruding for ± 1 cm. beyond last spikelet, practically straight	Protruding for ± 2 cm. beyond last spikelet, flexuose.