

SWEET VERNAL.

Sweet vernal (*Anthoxanthum odoratum*) is general over most of the country as a volunteer, but, as will be seen from the analyses, the average percentage cover is low—much lower really than what one would expect. On the poorer and harder country, particularly that which is quite run out, there is often a very marked volunteer growth of sweet vernal. On Mr. A. Bottomley's farm at Whangamomona, for example, the volunteer growth for the second year was 17 points, and 15 points in the third year. On this place the take of the regular grasses sown was extremely bad, and the writer is very much inclined to the opinion that a large sweet-vernal volunteer growth, particularly when the growth is sparse and the plants stunted, is a fairly certain indication that the fertility is very low and that it is useless to expect much else than danthonia to do well on that country. This, however, does not at all hold true where the sweet vernal is growing vigorously.

These volunteer growths, as pointed out elsewhere in this article, are extremely valuable, and the ultimate economic control of secondary growth is largely wrapped up in establishing additional species that will return as volunteers on the burning-off or on the crushing-out of that country, as often as it is necessary to finally kill the secondary growth outright.

Seed Mixtures for Secondary Burns.

The following mixtures, based on present-day knowledge, are recommended for secondary-growth country:—

(1) <i>Good general secondary-burn mixture for all hill country having over 60 in. rainfall.</i>				(2) <i>Secondary-burn mixture for hill country having over 60 in. rainfall where efficiency of mixture is slightly sacrificed to reduce cost.</i>			
			lb.				lb.
Brown-top .. .. .	..	..	2	Brown-top .. .. .	..	..	2
Crested dogstail .. .. .	..	..	4	Crested dogstail .. .. .	..	..	3
Perennial rye-grass .. .. .	..	..	6	Perennial rye-grass .. .. .	..	..	6
White clover .. .. .	..	..	1	White clover .. .. .	..	..	$\frac{1}{2}$
Lotus major .. .. .	..	..	$\frac{1}{2}$	Lotus major .. .. .	..	..	$\frac{1}{2}$
Danthonia pilosa .. .. .	..	..	3	Danthonia pilosa .. .. .	..	..	2
			<hr/>				<hr/>
Total per acre .. .. .	..	..	16 $\frac{1}{2}$	Total per acre .. .. .	..	..	14
Cost per acre approximately	26s.			Cost per acre approximately	20s.		
(3) <i>Secondary-burn mixture where likelihood of paspalum proving a success.</i>				(4) <i>Secondary-burn mixture where rainfall is below 60 in.</i>			
			lb.				lb.
Brown-top .. .. .	..	..	2	Brown-top .. .. .	..	..	1
Crested dogstail .. .. .	..	..	3	Crested dogstail .. .. .	..	..	4
Perennial rye-grass .. .. .	..	..	6	Perennial rye-grass .. .. .	..	..	6
White clover .. .. .	..	..	$\frac{1}{2}$	White clover .. .. .	..	..	1
Lotus major .. .. .	..	..	$\frac{1}{2}$	Danthonia pilosa .. .. .	..	..	4
Danthonia pilosa .. .. .	..	..	2				<hr/>
Paspalum .. .. .	..	..	2	Total per acre .. .. .	..	..	16
			<hr/>	Cost per acre approximately	22s. 6d.		
Total per acre .. .. .	..	..	16				
Cost per acre approximately	24s.						