

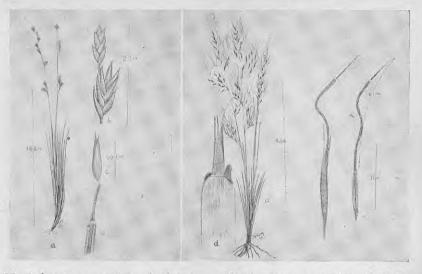
Silver tussock: *a*, portion of plant; *b*, group of spikelets; *c*, *d*, "seed"; *e*, collar and ligule.

Careful controlled experiments should be made before any general recommendation to burn is made.

(2) Grubbing.—This has been tried on many areas, with conflicting opinions as to the result. I have observed many tussocks killed by this method, but there is some evidence that the disturbance to the soil hastens the germination of seed already shed on the ground. It is certain that in areas long subject to the grass the seed content of the soil may be high. Tussocks that have been grubbed too deeply have been noted to recommence growth. It is, however, a useful method of control in newly-attacked areas of no great extent.

(3) Cultivation.—It appears to be generally accepted that the tussock can be controlled quite well in cultivated land by the ordinary methods of procedure. Cultivation on the hill country, however, where it is possible, is inadvisable at such frequent intervals as would be needed to control the tussock. The dangers of too frequent cultivation on such country is shown by the erosion already setting in on certain areas.

(4) **Insect Attack**.—Several caterpillars have been noted feeding on the tussocks, weakening and killing the growth in the centre. No evidence of any real control has as yet been noted,



Hard fescue: *a*, portion of plant; *b*, spikelet; *c*, "seed"; *d*, collar and ligule.

and in areas where the silver tussock is still plentiful this would also be liable to attack.

(5) **Pasture.**—A really dense pasture delays the entry of the tussock, but is, of course, difficult to obtain and maintain on much of the hill country.

(6) **Sprays.**—But little effort has been made to control the tussock by the use of sprays, and no certain evidence is available as to the possibilities of success on these lines.

(7) **Plantations.**—Plantations and shelter belts, especially those with a somewhat dense bottom growth, aid in checking spread, and careful consideration will have to be given to the Needle grass: *a*, portion of plant; *b*, spikelet; *c*, "seed"; *d*, collar and ligule.

proposal to afforest the worst areas. The plan appears sound on areas that are already practically out of production.

## Conclusion

It will be clear from the above that after the completion of the present survey it will be necessary to consider all the problems raised to determine on a concerted line of action and see that it is carried out. The massed battalions now in the field will not be rolled back by spasmodic and haphazard efforts.

