

Green Foxtail (*Setaria viridis* (L.) Beauv), the most prevalent impurity in Canadian-grown clover seed. Seed colour very variable according to the degree of ripeness; yellow, grey, brown or purplish, the darker seeds mottled with dark spots. The kernel is greenish-white, convex on the outer face, which bears the germ, and flattened on the inner face. Some of the lighter seeds may be blown out in cleaning, but most of them are impossible of separation by the average fanning mill.

This plant seeds profusely from harvest to late autumn in cereal stubble lands, hoed crops, new meadows and clover seed crops. Thick seeding with clovers and grasses will help to suppress foxtail in the autumn stubble and subsequent clover crop. In clover seed crops the patches that have been winter-killed should be mown while the foxtail is still green. The cut thus taken may be of value as fodder. Bare stubble should be ploughed shallow or disced to prevent the further ripening of seed directly after the grain crop is removed. Any practice that will prevent this annual from seeding will reduce and ultimately eradicate it. **Yellow Foxtail** (*Setaria glauca* (L.) Beauv) seeds are similar to those of green foxtail only larger.

Sheep Sorrel (*Rumex Acetosella* L.). The seeds, as they occur in clover seed, are generally covered by the three larger, conspicuously-veined calyx divisions which fit closely over the seed. The naked seed, when the calyx divisions are removed, is $\frac{1}{20}$ of an inch long, resembling docks in shape; pale brown, shining.

Sheep sorrel is able to thrive on land where clover cannot grow. On this account it is found where, for some reason, the clover makes a thin stand or is killed out entirely. On acid or sour soil clover either fails to grow or grows thinly. The sorrel, however, is able to grow on such soil and takes the place of the clover. Prevalence of sheep sorrel, therefore, indicates an unfavourable soil condition. See page 15 for suggestions on correcting soil acidity.

Pale Plantain (*Plantago Rugelii* DCne). This impurity is easily removed by cleaning over the sieve recommended for ribgrass. The seed is black, angular in outline, not very thick through. Hoed crops every four years will keep plantains in check. Working with a broad-shared cultivator, followed by a harrow to drag the plants with their fibrous roots to the surface is recommended for spring cultivation.

Common Plantain (*Plantago major* L.) seeds are smaller than those of pale plantain and greenish-brown in colour.

Black Medick (*Medicago lupulina* L.), a leguminous plant, often sown in Europe as a pasture crop. In red clover and alsike it should be considered as a weed as it matures earlier and the stems are hard and woody when the clover is ready to cut for hay. The seed is about $\frac{1}{8}$ of an inch long, hard, smooth and somewhat shining, egg-shaped rather than kidney-shaped, yellow to pale olive green. It has a sharp projection near the scar from which a light line runs towards the larger end of the seed.

The plant is an annual and may be eradicated by any means that will prevent its forming seeds. Thick seeding to more valuable leguminous plants will help crowd it out. The seed retains its vitality for some time and so the plant is apt to make its appearance for a number of years in fields where it has been allowed to mature its seeds.

Lamb's Quarters (*Chenopodium album* L.) about $\frac{1}{20}$ of an inch in diameter, circular in outline, more or less flattened on one side, strongly convex on the other, edges bluntly rounded, the lower convex face grooved from the margin to the central scar, minutely wrinkled; colour, shining black. The seeds, as found among crop seeds, have a thin envelope closely adhering to them, as a brown or grey mealy deposit, which gives them a granular-roughened appearance; they also often have the dried 5-angled calyx closed tightly over them. Small seeds are removed from red clover by 4 by 24 screen.