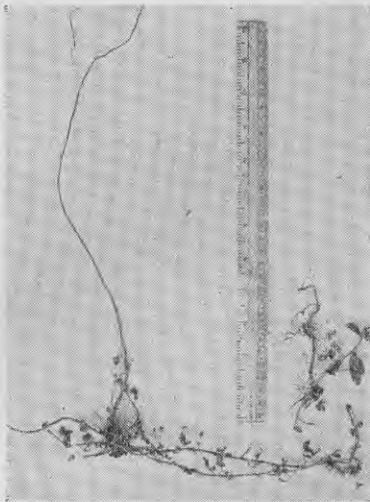


PASTURE ESTABLISHMENT ON RECLAIMED TIDAL FLATS



Strawberry clover, the pioneer plant for pasture establishment on reclaimed tidal flats. Left—A plant of strawberry clover. Right—A plant of white clover for comparison. Note strong, deep rooting system of strawberry clover and short roots of white clover, from the stolon.

this type of cultivation, better results are obtained after ploughing and a fallow before sowing. Ploughing should be done during the late autumn, before the land becomes wet, and the furrow slices should be broken down roughly. If the land is left in this condition through the winter, the rains will assist to wash out more salt to the lower layers or into the drainage system. It is generally not necessary to plough a second time, but the land should be constantly worked with a cultivator and penetrating harrows during the summer. This sweetens the soil considerably.

and allows adequate aeration while a good seed-bed is being prepared which will be consolidated from the bottom up. The seed-bed should be ready for sowing during late February, and one stroke of the Cambridge roller just prior to sowing the seed should be sufficient. Clay soil types cannot be handled satisfactorily without ploughing, on account of rushes, and they should be subjected to thorough summer cultivation before sowing to grass. It is necessary, on the clay types, to clear the mangrove trees before any progress can be made with ploughing and cultivation. If mangroves are present, they rapidly die when the sea water is shut off the area, but they entail a considerable amount of work in clearing where the trees are large. Stumping is often necessary to prepare the land for ploughing.

Grassing

Where the drainage is efficient, and the cultivation is thorough, no difficulty is experienced in establishing a high-producing sward of perennial ryegrass and clovers. Strawberry clover does well on reclaimed flats. It will establish before other types, and should be sown in all mixtures. White clover establishes soon after strawberry, but is checked considerably during the summer, when reclaimed tidal flats become very dry. Perennial ryegrass will thrive only when the clovers have made good establishment and are thriving. Paspalum, although slow to establish, does well when established, and forms a good combination with perennial ryegrass and white and strawberry clovers. Italian ryegrass, alsike, and red clover can be used, but they form only temporary elements. A mixture which



"Indicator" plants. Left—Inflorescence of fleabane. Right—Inflorescence of sea aster.

has proved satisfactory on well-drained reclaimed areas consists of—

	lb. per acre.
Perennial ryegrass (Certified)	25
Paspalum (Australian)	5
White clover (Certified)	2
Strawberry clover	2
Red clover	3
	—
	37
	—

Note: Paspalum is included for North Auckland, but further south, where climatic conditions are cold, it should be deleted.

Strawberry clover (*Trifolium fragiferum*) has proved a very valuable plant for establishing pastures on re-



A farm on reclaimed tidal flats brought into permanent pasture with the aid of drainage and strawberry clover, carrying a herd of dairy cows.