

Dr. J. S. Yeates has conducted extensive surveys of flax areas in search of strains and types of *Phormium tenax* possessing features rendering them desirable from the point of view of fibre-production. Cytological problems of phormium have also been investigated, as on these are based the whole future of flax-breeding. In consequence a considerable amount of selected seed has been saved, and a large number of selected plants transferred to a special nursery at Massey College to allow further investigations to be pursued. In view of the large areas at present being planted and proposed to be planted in flax, this work is of the greatest importance in order that the best possible fibre-yielding strains may be established in these plantations.

Much has been done by these two workers towards collecting, systematizing, and applying the valuable researches previously conducted by other workers.

Up to the present, funds for these investigations have been voted specially by the Council of Scientific and Industrial Research, but as a result of negotiations which have been proceeding for some considerable time, a Co-operative Research Association has been formed in the flax industry. This organization will ensure that the full measure of interest and financial support is forthcoming from the industry.

#### *Pakihi-lands Research.*

A grant subsidizing others made by the Westport Borough Council and the Buller County Council, has been made to Cawthron Institute for the purpose of investigating the possibilities of bringing into profitable utilization the large area of pakihi lands (estimated at 180,000 acres) in the Nelson and Westland Districts. With the assistance of this grant, experimental work has been commenced on an area in the vicinity of Westport, and the Director of the Cawthron Institute reports that the outlook is promising.

#### *Fruit Research.*

A grant has been made for the purpose of investigating bud-selection as a means of improving the general standard of citrus trees propagated. This grant will be used for the purpose of examining the results of what has already been done in New Zealand in connection with the utilization of specially imported buds and stocks from California and Australia.

The whole question of fruit research at present is receiving consideration by representatives of the industry and departments concerned.

#### *Mammitis and Abortion Diseases of Stock.*

The Council of Scientific and Industrial Research has continued to urge the necessity of more concentrated attack upon these diseases, which are responsible for grave economic loss among the dairy herds of the Dominion. Difficulty has been experienced in securing the services of a highly trained bacteriologist capable of dealing with the problem, and until this difficulty is overcome, progress seems very unlikely. The forthcoming visit to New Zealand of so eminent an authority as Sir Arnold Theiler is being looked forward to with considerable anticipation, and it is hoped that his recommendations will indicate means of dealing with the problems of these two serious diseases.

#### *Fisheries.*

The research grant made available for the purpose of conducting an investigation into the plankton of waters round the New Zealand coast and the stomach-content of fishes has been continued, and reports dealing with this matter have been prepared. This investigation, being of a fundamental nature, provides information of particular value in regard to the available supply of fish-food and the fish-maintaining capacity of the New Zealand waters.

#### *Research Work for Secondary and Manufacturing Industries.*

Many problems in connection with these industries have been undertaken apart from those mentioned elsewhere. In this connection valuable assistance has been rendered by the Department of Industries and Commerce towards bringing the Department into touch with many industrial problems. It is hoped that this co-operation will be continued and extended, since the local officers of the Department of Industries and Commerce are constantly in intimate contact with the industries in their areas. Meetings of local manufacturers have been held in order to obtain the views of members as to the best means of co-operating for the purpose of application of scientific control to particular industries. Practical technical help and advice have been given to many individual manufacturers, including the following: Soap, boot and shoe, fancy leather, margarine, rennet, gelatine, and wool. In addition, a great deal of investigational and advisory work has been carried out by the staff of the Dominion Laboratory.

#### *Meat-industry Problems.*

Particular attention has been paid to the freezing-works industry, in view of its primary importance as a key industry. The co-operation of nearly all the freezing-works in New Zealand for the purpose of research into the general problems relating to the industry is now assured. The companies will provide an annual sum of £1,250 which will be supplemented by an annual Government grant of £1,250 for three years. The work will be for the sole benefit of the contributing companies and will not be published without the consent of the committee. Steps are being taken to appoint two chemists—one for the hide and pelt problem, and the other for general problems affecting the industry. There is no doubt that wide scope exists for elimination of waste, improvement in processes, and generally for the application of newer technical methods to the industry as a whole. This can be done efficiently only with the aid of specialists and equipment, not at present available.