

Baking.

Variety trials	119
Manurial and smut treatments	35
Cut green and cut ripe	21
Harvester header	20
Ashburton Experimental Farm trials	27
Miscellaneous (from milling-samples)	404
Wholemeals (from milling-samples)	64
For testing of milks, malts, fats, and other flour improvers (about)	500
Distributors' flours	508
Millers' flour-samples other than Distributors	1,367
Bakers' direct	62
Bakers' indirect for articles	200
For heat-treatment laboratory trials	173
Total	3,500
All these are baked in duplicate	7,000

Chemical Work.

Protein survey	618
Protein milling-samples	626
Total	1,244
Moistures	860
Malt-testing—developing a suitable analytical method for rapid testing of wheat-malt plus malt-testing samples	70
Diastatic activity of flours	97
Complete analysis of animal-feeding stuffs ranging from cereals, cereal by-products, to fish-meals for blending purposes	69
Miscellaneous ash tests	36
Confidential chemical analysis of cereals, cereal by-products, and products used by bakers, &c. This work varied extremely, ranging from determination of crude fibre in baby-foods for the Plunket Society to various dairy by-products used by bakers	19

During the harvest of 1932 a great deal of wheat in South Canterbury and North Otago was spoiled by rain, and there was often grave doubt whether the wheat as threshed would be fit for milling. Samples of four hundred or five hundred lines were therefore sent to the Institute by merchants and millers to be milled and baked, and as a result many thousands of bushels which on inspection only would have been rejected and classed as fowl-wheat were accepted as milling-wheat. These tests necessitated the experimental mill being worked a double shift; the extra miller required was paid as to half his wages by Distributors Ltd., and the Institute expresses its gratitude to that body for its assistance.

In the table of operations for the year will be noted two items—Distributors' flours, 508, and millers' flours other than Distributors, 1,367.

That the millers sent in for baking 1,875 samples of their flour for testing, shows that they are doing all that lies in their power to keep up or improve the quality of their product. This must react favourably on farmers, in that it indicates an effort to produce the best flour from the wheat available, instead of looking overseas for foreign wheats of supposedly superior quality; and it must react favourably on the bakers and the public, as giving them the best flour that can be obtained from our home-grown product.

Work which is then done directly for millers is of advantage to all the industries who are contributing to the Institute.

NOXIOUS WEEDS RESEARCH.

Advisory Committee: Professor H. B. Kirk (Chairman), Mr. Q. Donald, Dr. F. W. Hilgendorf, Mr. A. H. Cockayne. Director of Research: Dr. David Miller.

Blackberry.—The researches on *Coraebus rubi* were continued throughout the year. Further observations show that the adult beetle has a strong liking for the foliage of important fruit-trees. Further, it is doubtful if the larvæ would be an effective check upon blackberry, since infested canes have not been killed, but continue growing. In view of all the evidence, it has been decided to discontinue the researches on *Coraebus* after the present observations have been finalized.