

ORIGIN OF GLUYAS AND WARD'S PROLIFIC WHEAT.

In looking up old volumes of the "Garden and Field," for information about wheat I came across a paper read by Mr. H. J. Gluyas at the Port Germein branch of the Agricultural Bureau of January 11, 1896. The subject being rust-resistant wheats.

"Not many years since farmers in South Australia were much troubled with red rust, and eager to find a remedy against its ravages. Many were the experiments tried to cope with this parasite of the wheat plant; but the fungus defied their efforts for several years. Some tried spraying compounds, others different methods and times of sowing, pickling, etc., but without success. Finally, the conclusion was arrived at that the remedy would only be found in the discovery of rust-resistant varieties of wheat; and in time certain sorts were found to possess that virtue. The late Dr. R. Schomburgk introduced some varieties from California, but only one withstood the test, and that was grown to a small extent for a few years, though it never became popular with the millers, and its susceptibility to drought caused it to fall into disfavour with farmers.

"Later on Mr. Ward, of Nelshaby, selected a variety growing amongst the crops raised from the seed introduced by Dr. Schomburgk, and after a few years distributed it amongst farmers at a very fair price. This was in distinct contrast to the practice of some farmers having new or desirable varieties, who charge exorbitant prices to brother farmers, whilst they will sell the same grain to merchants at ordinary market rates. This conduct was highly reprehensible. Ward's Prolific wheat is now known all over the colony. It is well suited in a warm and early district with a friable soil, and this appears to be the reason why it yields better on the western side of the Flinders Range than elsewhere. In common with many rust-resistant wheats, it matures too slowly, and if any weeds happen to be on the same ground they tend to prevent the wheat plant developing, and even retard or destroy it when dry weather approaches. Another drawback to most of the rust-resistant wheats is the flinty nature of the grain, which is objectionable to our millers and wheat buyers. This objection earns very strange in the face of proofs and the authority of men capable of judging and analysing the properties of grain.- It is an established fact that these so-called flinty wheats are very rich in gluten, a life-sustaining element of high order. A short time ago he noticed that an authority in Europe, advised the farmers to grow more of these wheats. ? The majority of the rust-resistant wheats are flinty, and the grain is not generally plump, though the weight is in most cases satisfactory. The buyers are obliged to give some reason for finding fault, therefore they say the flour is inferior and makes dark-coloured bread.

"In consequence of this antipathy on the part of wheat buyers to the flinty wheats, farmers in various parts of the colony have endeavoured in various ways to produce wheats which shall be rust-resistant, soft, prolific, hardy, upright, early, not liable to shake out when ripe, easy to thresh, and possessing other desirable qualities; and with some amount of success. The Central Agricultural Bureau has introduced a great number of varieties from abroad, but, so far as he could remember, not one of these became popular with the growers. The methods of crossing and selecting had become very successful. Amongst the most energetic of those who conducted experiments were Mr. A. B. Robin, Nuriootpa; Mr. J. M. Inglis, Pine Forest; and Mr. A. Steinwedel, Dalkey; whilst Mr. R. Marshall, of Templers, has been constantly engaged during several years in crossing and experimenting with a great number of wheats; and Mr. Leak had also been diligent in the same line. A fair number of the rust resistant wheats had originated in the dis-districts near hand, such as Budd's Rustproof, Thomas's Barooto Wonder, etc. Some of these have been fairly successful.

"He had always held the opinion that they required in that district an early maturing wheat, to be well advanced by September, with good grain and rust-resisting character. After several years and considerable trouble he claimed to have been fairly successful in experiments made in this direction. He had or nine selected varieties cultivated in his experimental plots, and had gradually reduced the number to two, rejecting the others for various deficiencies in character. Samples of the two retained were now placed on the table. One he named Gluyas's Early, and the other Gluyas's Dark Straw. The first matures within 20 weeks, is rust-resisting, has a long berry, of good weight, and by all farmers to whom it has been shown pronounced to be suited to a district with limited rainfall. It is claimed for this variety that, it is the earliest of any rust resistant wheat. The second variety is a fairly good yielding wheat, with short berry, and is rather earlier than Ward's Prolific, stools well, gives a plump grain, and makes excellent hay. It has given much better results this season than other wheats grown alongside, and under the same conditions."