

RESULTS OF THE EXPERIMENTS AT THE VARIOUS EXPERIMENTAL STATIONS AND UNIVERSITIES

| Experimental Stations | Date sown, 1923 | Date examined, 1923 | Estimated percentage of rust on varieties of wheat | | | | | | | | | | | | | | | | |
|-----------------------|-----------------|---------------------|--|--------------------------|---------------------------|--------------------------|---------------------------|---------------------------|-----------------------|------------------------|----------------------------|-----------|----------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|--------------------|
| | | | Marquis, M. A. 1239 | Marquis x Kanred 11-18-8 | Marquis x Kanred 11-18-10 | Marquis x Kanred 11-19-7 | Marquis x Kanred 11-15-57 | Marquis x Kanred 11-15-58 | Marquis x Kanred 12-5 | Marquis x Kanred 13-11 | Kota Natural Cross 11-19-4 | Kota 255M | Kota 30f | Marquis x Iumillo 11-15-43 | Marquis x Iumillo 11-15-44 | Marquis x Iumillo 11-15-51 | Marquis x Iumillo 11-15-55 | Marquis x Iumillo 11-15-59 | Marquis, Ottawa 15 |
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| Morden..... | May 10.. | Aug. 1.. | 55 | 55 | 55 | 50 | 45 | 70 | 60 | 75 | 30 | 20 | 15 | 10 | 15 | 20 | 20 | 15 | 60 |
| Winnipeg..... | May 17.. | Aug. 2.. | 60 | 60 | 65 | 55 | 70 | 70 | 70 | 70 | 40 | 25 | 15 | 5 | 5 | 20 | 20 | 10 | 75 |
| Brandon..... | May 22.. | Aug. 20.. | 75 | 75 | 75 | 45 | 70 | 80 | 75 | 75 | 75 | 45 | 45 | 8 | 10 | 10 | 45 | 20 | 75 |
| Indian Head..... | May 15.. | Aug. 24.. | 65 | 65 | 70 | 45 | 50 | 70 | 50 | 65 | 15 | 10 | 10 | 7 | 10 | 25 | 30 | 20 | 60 |
| Saskatoon..... | May 20.. | Sept. 5.. | 75 | 50 | 40 | 20 | 25 | 50 | 35 | 40 | 20 | 20 | 25 | 15 | 10 | 15 | 25 | 15 | 65 |
| Rosthern..... | May 19.. | Sept. 4.. | 30 | 10 | 25 | 10 | 15 | 30 | 15 | 20 | 10 | 5 | 5 | 5 | 5 | 5 | 15 | 20 | 45 |

I am not going to read Table No. 1, but I wish to point out the remarkable resistance which is inherent in some of these new crosses. For instance, ordinary Marquis wheat rusted at Morden 55-60 per cent, at Winnipeg 60-70 per cent. A cross between Marquis and Iumillo, which latter is a Durum wheat, rusted only 10 per cent at Morden and 5 per cent at Winnipeg. This very cross, Marquis x Iumillo (11-15-43) showed 10 per cent, 5 per cent, 8 per cent, 7 per cent, 15 per cent, and 5 per cent infection, whereas the Marquis showed 60 per cent, 75 per cent, 75 per cent, 60 per cent, 65 per cent, and 45 per cent infection, under identical conditions, side by side.

By Mr. Lovie:

Q. Was it an early wheat, the cross?—A. It is of about the same maturity as Marquis, but it was purposely sown late. Had this wheat been sown early there might have been no infection at all. This variety promises to be absolutely resistant under certain conditions.

It will further be seen from this table that all the Marquis x Iumillo hybrids were markedly resistant in all trial plots. Had they been seeded early they would probably have been practically free from rust. The straw was strong and the heads in appearance resembled Marquis. The Marquis x Kanred crosses proved susceptible.

The yield in grams per row of each of these varieties at each Station, is given in Table No. 2: