

METHODS USED IN MEXICAN BREEDING PROGRAM.

1946-49 Varieties Produced by Introduction & Selection.

1. Supremo 211 - Obtained from material provided by E.S. Mc Fodden of Texas.
2. Gabo - Obtained from Australia.

1945-1954 - Varieties Developed from Crosses Made in México - all Material was Handled by the Pedigree Method. The first crosses were made in April 1945.

<u>Varieties Developed</u>	<u>Parents</u>	<u>Date of Release</u>	<u>Present Status</u>
1. Yaqui 48	Newthatch x Marroqui	1948	Has been replaced by Yaqui 50
2. Yaqui 50 <sup>SM</sup>	a Reselection from Yaqui 48	1950	Still grown extensively
3. Mayo 48	Newthatch x Marroqui	1948	Replaced by Yaqui 50
4. Kentana 48 <sup>SM</sup>	Mentana x Kenya C9906	1948	Being replaced by Kentana 54
6. Chapingo 52 <sup>SM</sup>	All derived from crosses of Yaqui 48 x Kentana 48	1952	Now extensively grown
7. Chapingo 53		1953	"
8. Bajío 53		1953	"
9. Toluca 53		1953	"
10. Moxe 53 <sup>SM</sup>		1953	"
11. Yaqui 53 <sup>SM</sup>	Yaqui 48 x (Egypt 101-Tinstein)	1953	"
12. Mayo 54 <sup>SM</sup>	(Egypt 101 x Tinstein) x Mayo 48	1954	"
13. Sinaloa 54 <sup>SM</sup>			

<u>Varieties Developed</u>	<u>Parents</u>	<u>Date of Release</u>	<u>Present Status</u>
14. Gabo 54 <sup>MM</sup> Cajeme 54 <sup>MM</sup>	both derived from cross of Gabo x (Kenya C9906-Urquiza.	1954	First year in Commercial production
15. Lerma Rojo <sup>MM</sup>	derived from Lerma 50 x [(Yaqui 43 (María Escobar <sup>2</sup> -Supremo)]	1955	First year in Commercial production
16. Kentana 54 <sup>MM</sup>	derived from Kentana 43 x Rio Negro	1955	" "

Varieties Derived From Backcross Method

<u>17.</u> Lerma 50	derived Kentana <sup>3</sup> x Kenya C9906	1950	Was very popular until appearance of Races 29, 43, 49 and 139.
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\* Yaqui 50 is still our standard for quality in the hard wheat group.

MM Soft wheats.

Lerma 50 was the highest yielding and most widely adapted variety developed by the breeding program. It was extensively grown before the appearance of races 29, 43, 49 and 139.

The current emphasis in the Mexican breeding program is to improve the commercial varieties Gabo, Yaqui 50 and Kentana 43 through backcrossing. This very extensive backcross program has been in operation for 2 1/2 years and many of the lines are now in the 3rd and 4th backcross. The varieties (or lines) which are developed by this backcross program will be used either as conventional varieties or as part of a composite variety as the need develops.

The parents used most commonly in the current backcross program are indicated in the attached mimeographed sheet where they are checked

in red. You will note that the varieties which are most extensively being used in the backcross program as donor parents for stem rust resistance are generally those which have shown outstanding promise in the International Rust Nurseries in recent years.

We consider our current backcross program the very heart of our breeding program at the present time.

N. E. Borlaug.