

IV. REPORT ON MAIZE COOPERATIVE

In 1962, seed increases were made of 165 older, mostly permanently-lettered reciprocal translocations. These stocks are now available for distribution and are listed in this report. In most cases individual translocations can be supplied either in homozygous or heterozygous condition. Most are also available with linked gene markers. This series includes consecutively-numbered translocations from 1-2b through 4-9c.

The remaining lettered translocations (from 4-9c through the 9-10's) were grown the past summer. These have not yet been fully catalogued and pedigreed for distribution.

Increases were made of our entire collection of stocks in Chromosomes 1 through 5, and of selected stocks in Chromosomes 9 and 10. Additional increases were made of exotics and popcorns, endosperm (starch) mutants, glossy leaf traits, A-B translocations, multiple gene testers, and wx-marked translocations.

Most of the unplaced genes which have appeared on our stock list were crossed last summer with wx-translocations and A-B translocations in an effort to place these genes to chromosome and determine their map positions. Progenies from these crosses are being grown in the current Florida generation and will also be grown next summer.

Dr. R. J. Lambert joined our staff last summer and has been assisting in all phases of the Maize Cooperative work.

During 1963, 1,416 seed samples were supplied in response to 92 requests. Of the total, 997 samples were distributed within the U.S. (81 requests) and 419 samples were sent to foreign countries (11 requests).

The following listing of 165 reciprocal translocation stocks is a supplement to stock lists in the 1962 and 1963 Maize News Letters. Requests for seed or for copies of stock lists should be sent to E. B. Patterson, S-116 Turner Hall, Agronomy Department, University of Illinois, Urbana, Illinois.

RECIPROCAL TRANSLOCATIONS

The interchange positions for these translocations are listed in the following publication: Longley, A. E. Breakage Points for Four Corn Translocation Series and Other Corn Chromosome Aberrations. U.S. Dept. of Agr., Agr. Res. Serv. ARS 34-16, 40 pp., 1961.

| Translocation | Temporary Symbol | Translocation | Temporary Symbol |
|---------------|------------------|---------------|------------------|
| 1-2b | | 1-10a | |
| c | | b | Conn R-41 |
| d | 17 | c | A-50 |
| e | B-75 | d | A-84 |
| 1-3a | | e | B-98 |
| c | | f | C-36 |
| d | | g | C-47 |
| e | A-33 | 2-3b | |
| h | C-15 | c | |
| i | C-43 | d | |
| j | F-10 | e | |
| k | G-3 | f | A-61 |
| 1-4a | | g | F-35 |
| b | Conn R-29 | h | K-7 |
| c | A-57 | 2-4a | |
| f | C-46 | b | |
| g | C-49 | c | |
| h | X-22-61 | d | |
| | K-40 | e | Conn R-42 |
| 1-5a | | f | A-29 |
| b | | g | C-31 |
| c | | j | K-10 |
| e | A-90 | k | X-1-1 |
| f | D-5 | l | X-2-64 |
| g | I-24 | m | X-47-41 |
| h | X-1-37 | 2-5a | |
| i | X-23-2 | b | |
| 1-6a | | c | Conn R-50 |
| c | | d | A-74 |
| d | Conn R-28 | e | B-69 |
| e | A-80 | f | K-3 |
| f | B-92 | g | X-14-122 |
| g | F-30 | 2-6a | |
| h | X-41-13 | b | |
| 1-7a | | c | |
| b | | d | |
| c | | e | |
| d | | f | 84-2 |
| e | 42 | | 78 |
| f | A-69 | 2-7b | |
| g | B-49 | c | |
| h | B-94 | d | B-108 |
| i | I-17 | e | C-44 |
| j | X-55-16 | f | F-29 |
| | A-37 | 2-8b | A-1 |
| 1-8a | Conn R-20 | d | C-24 |
| b | B-42 | e | C-40 |
| 1-9a | | f | C-57 |
| b | | g | G-2 |
| c | | h | X-42-32 |
| d | I-9 | | 84 |

| Translocation | Temporary Symbol | Translocation | Temporary Symbol |
|---------------|------------------|---------------|------------------|
| 2-9a | | 3-9a | |
| b | | b | |
| c | C-61 | c | |
| d | H-7 | d | A-41 |
| 2-10a | | e | A-94 |
| b | F-2 | f | B-103 |
| | I-3 | g | F-24 |
| 3-4 | A-21 | h | X-23-158 |
| 3-5a | | 3-10a | |
| b | | b | |
| c | | c | |
| e | A-101 | 4-5a | |
| g | X-4-108 | b | |
| h | X-7-38 | c | |
| | B-104 | d | |
| 3-6a | | e | Conn R-18 |
| b | | f | Conn R-30 |
| c | Conn R-34 | g | Conn R-32 |
| d | A-53 | i | B-74 |
| 3-7a | | j | X-6-77 |
| b | | k | X-19-5 |
| c | | 4-6a | |
| d | C-75 | b | |
| e | F-25 | c | |
| 3-8a | | d | Conn R-43 |
| b | | e | X-57-31 |
| c | Burnham | 4-7a | |
| e | A-22 | 4-8a | |
| f | A-104 | b | X-17-108 |
| g | B-37 | 4-9a | |
| h | X-23-26 | b | |
| | | c | bp |

E. B. Patterson