

can be expected unless the present labour force is considerably augmented. Table VII shows the trend in numbers engaged in farm-work in relation to volume of farm production.

TABLE VII—PERSONS ENGAGED IN FULL-TIME FARM-WORK IN RELATION TO VOLUME OF PRODUCTION

| Year.         | (1)<br>Numbers Engaged<br>in Farm-work<br>(000's).* | (2)<br>Index Nos. of (1),<br>1928-29 = 100. | (3)<br>Volume of Farm<br>Production.<br>1928-29 = 100. |
|---------------|-----------------------------------------------------|---------------------------------------------|--------------------------------------------------------|
| 1928-29 .. .. | 140·6                                               | 100                                         | 100                                                    |
| 1929-30 .. .. | 140·1                                               | 100                                         | 105                                                    |
| 1930-31 .. .. | ..                                                  | ..                                          | 106                                                    |
| 1931-32 .. .. | ..                                                  | ..                                          | 106                                                    |
| 1932-33 .. .. | ..                                                  | ..                                          | 122                                                    |
| 1933-34 .. .. | ..                                                  | ..                                          | 125                                                    |
| 1934-35 .. .. | ..                                                  | ..                                          | 122                                                    |
| 1935-36 .. .. | 160·8                                               | 114                                         | 128                                                    |
| 1936-37 .. .. | ..                                                  | ..                                          | 132                                                    |
| 1937-38 .. .. | ..                                                  | ..                                          | 132                                                    |
| 1938-39 .. .. | ..                                                  | ..                                          | 127                                                    |
| 1939-40 .. .. | ..                                                  | ..                                          | 129                                                    |
| 1940-41 .. .. | ..                                                  | ..                                          | 147                                                    |
| 1941-42 .. .. | ..                                                  | ..                                          | 140                                                    |
| 1942-43 .. .. | ..                                                  | ..                                          | 137                                                    |
| 1943-44 .. .. | ..                                                  | ..                                          | 133                                                    |
| 1944-45 .. .. | 128·5                                               | 91                                          | 143                                                    |
| 1945-46 .. .. | ..                                                  | ..                                          | 135                                                    |
| 1946-47 .. .. | 126·4                                               | 90                                          | 139                                                    |

\* Persons engaged on farms: the figures for 1928-29, 1929-30, and 1946-47 are as collected in the annual Agricultural and Pastoral Statistics, with an estimated addition of 2,000 to allow for persons engaged on land inside boroughs and on holdings of less than 1 acre. The figures for 1935-36 and 1944-45 are from the 1936 and 1945 census returns, including the Maori census for 1936, and an estimate of the number of Maoris engaged in farm work in 1945. Because of differences in classification the two census figures, though comparable with each other, are not strictly comparable with the figures for the other three years.

### MECHANIZATION

There is a limit in the extent to which mechanization displaces labour, particularly in live-stock farming. Machines enable work to be done more quickly and more easily, eliminating much backbreaking drudgery, but there are many periods in the farmer's year when no machine can replace a watchful eye and a skilled pair of hands. The power-driven milking-machine and the cream-separator have probably been most instrumental in aiding farmers to maintain high production levels with a reduced labour force. In 1925, only 59·79 per cent. of the cows were machine milked, but by 1948 the figures had reached 91·88 per cent. Formerly used almost exclusively in arable farming and in land-development, the agricultural tractor is now replacing the horse on dairy-farms. The development of farm mechanization is illustrated in Table VIII.

TABLE VIII—STATISTICS OF SOME OF THE MAJOR ITEMS OF MECHANICAL EQUIPMENT ON FARMS, 1920-48\*

| Year.      | Agricultural<br>Tractors. | Milking<br>Plants. | Cream-<br>separators. | Electric<br>Motors. | Shearing<br>Plants. | Internal-<br>combustion<br>Engines. |
|------------|---------------------------|--------------------|-----------------------|---------------------|---------------------|-------------------------------------|
| 1920 .. .. | 324                       | 8,806              | 26,678                | 456†                | 5,155               | 13,981                              |
| 1925 .. .. | 1,026                     | 15,561             | 44,656                | 3,451               | 5,728               | 19,894                              |
| 1930 .. .. | 3,891                     | 20,415             | 48,302                | 16,456              | 7,394               | 19,169                              |
| 1935 .. .. | 5,349                     | 25,630             | 55,920                | 31,631              | 8,174               | 22,117                              |
| 1940 .. .. | 11,278                    | 29,564             | 55,773                | 56,511              | 10,634              | 23,276                              |
| 1946 .. .. | 18,940                    | 31,805             | 47,783                | 76,946              | 13,544              | 21,473                              |
| 1947 .. .. | 21,156                    | 32,596             | 48,194                | 82,721              | 14,564              | 23,109                              |
| 1948 .. .. | 23,423                    | 33,461             | 48,457                | 88,282              | 15,468              | 24,922                              |

\* Agricultural and Pastoral Statistics.

† 1921 figure.