

WEEDS AND THEIR IDENTIFICATION.

ESMOND ATKINSON, Department of Agriculture, Wellington.

TUTSAN (*HYPERICUM ANDROSÆMUM* L.).

SOME of the weeds that have been illustrated from time to time in the *Journal* are included in one or other of the schedules of the Noxious Weeds Act. Such is the case with the one now shown—tutsan—which is on the Second Schedule of the 1928 Act (Third Schedule of the 1908 Act). Probably nearly all the scheduled weeds have been illustrated in New Zealand in the past, but there is very little uniformity in these illustrations, which are scattered through a number of different publications.

Apart from such things as the means used in making the original drawing and in reproducing it, there remains the factor of size, and as a rule very little attention is paid to this most important point. If one drawing is natural size and another half that scale, much of their value for purposes of comparison vanishes, no matter how clearly the degree of magnification is marked on each. It is thought that a complete series showing all the scheduled weeds without these disadvantages would be welcomed by many readers of the *Journal*.

It will probably be generally admitted that the most adequate way of showing the general appearance of a plant is a life-sized coloured illustration. In these articles the colour has to be described in words, but (except where certain details are shown which are almost invisible to the naked eye—for example, "c" in the present illustration) the drawings are natural size.

DESCRIPTION OF TUTSAN.

Tutsan is something like the better-known St. John's wort (*Hypericum perforatum*) in appearance, but it is much bigger, with larger leaves and fewer and far less showy flowers.

It is a shrubby plant forming a bush 3 ft. or 4 ft. high, with stems which are more or less green and soft at the tips but quite hard and woody at the base. The stems have several "wings" or narrow ridges running along them, giving them rather the look of being angular in section. The roots of tutsan are not creeping like those of St. John's wort, and tutsan is never found as an aggressive weed of grassland. The leaves are stalkless and more or less egg-shaped, or sometimes even heart-shaped, and are arranged in pairs on opposite sides of the stem, each pair being at right angles to those above and below it (see figure). Masses of tutsan can often be recognized at a distance from their bronze-coloured leaves though they are green enough when quite young. In autumn this colour may range through many different purples to blood-red, and is almost the most striking characteristic of the plant.

The general appearance of the flower—which is pale clear yellow in colour—is shown in the figure. The fruit is quite fleshy and berry-like, and cannot be confused with that of St. John's wort, which is hard and dry, and splits open when it is ripe. Three of these fruits may be seen in the figure, half-concealed by the leaves; below are