

The Toronui which the main road crosses at the H.Q. turn off well repays the wading one has to do. Hebe diosmaefolia, Gnaphalium keriense, Pimelia prostrata and Ackama rosaefolia (a lovely sight in December), Loxosoma Cunninghamii, Sphaerocionium ferrugineum and others make it worth while.

- J.W. Jessop.

\* \* \*

### SOMETHING ABOUT CHROMOSOMES

- E.J. Godley

There is a very frail connection between one generation and the next in living organisms. Two tiny cells, the male and female gametes, bridge the gap, and carry within them all the vast potentialities of development which will make a new organism. The pattern of development is determined by genes aggregated in a linear order to form chromosomes, and these are found in the nucleus of both the male and female gametes. Offspring resemble parents because they have received their chromosomes from the parents. Genes cause certain characteristics in the parents and the descendants of these genes cause the same characteristics in the offspring.

Any pollen grain of a potato plant has 24 chromosomes in its nucleus, and the same number is found in the egg cells or ovules of the flower. On fertilisation the nucleus of the pollen grain fuses with the nucleus of ovule and the chromosomes added together give a fertilised egg with 48. From this cell all the cells of the body are derived. Cells increase in number by mitotic division, which ensures that such daughter cell resulting from a division has chromosomes identical with those of the parent cell. When the time comes for reproduction a special division called meiosis produces gametes with half the normal chromosome number. The normal number is restored on fertilisation.

Chromosomes in plants are best seen in regions where cells are actively dividing, i.e. root tips, or at pollen formation in the young flower. Here are some chromosome

## MAINLY HORTICULTURAL

Mr. R.O. Gross has sent me recently an account of his experiences with that attractive tropical fruit the Avocado Pear. In case members are interested I print extracts from his letter.

"About ten years ago seeds from an avocado pear were planted in a flower border and forgotten. They germinated but unfortunately they were planted just a few inches apart, so now they look like a three-stemmed tree - they have grown to a height of probably twenty feet. Two years ago, one tree was covered with bloom, but not a single fruit set. Last year the same tree bloomed and a weak spray of Fruitone was used. Whether or not as a result, the tree has about a dozen healthy pears developing. Although the trees were well sheltered, they were overcrowded and grown in poor scoria soil. It seems likely then that under good conditions the avocado might do well in Auckland."

Have any of our members had success in growing this tree?

\* \* \*

## INFORMATION REQUESTED

A member wishes to know where the following shrubs may be found growing in the Auckland suburbs:

The Eucryphias;  
Berberidops corallina;  
Lapageria rosea;  
Philesia buxifolia;  
Rubus deliciosus;  
Tricuspidaria lanceolata;  
Templetonia retusa.

Would any member having relevant information please notify the editor?

\* \* \*

## NEWS OF MEMBERS

We are very sorry indeed to hear of the illness of our enthusiastic committee member, Mr. Tomlinson. We offer him our sympathy and our best wishes for a speedy recovery.