

INTRODUCTION

OBJECT

The object of the investigation was to determine the inheritance of the several flower colours by hybridisation and observation of the ratios of the colour produced in the progeny.

LITERATURE

Previous work having a direct bearing on colour in Lochnera rosea has been described by Waitt (1956) and by Flory (1944). Flory crossed "pink" by "white" reciprocally and obtained "pink" F₁'s which gave in the F₂ 9 "pink": 3 "Red Eye": 4 "White". The explanation given is as follows:-

R, the basic colour gene, r recessive white.

W, a factor which intensifies R, changing "Red Eye" to "Pink", but is without effect in the absence of R.

That the parents were homozygous is evident from the segregations obtained and therefore the parents were:-

"Pink" WWRR, "White" wwrr.

The F₂ had the constitution WwRr ("Pink") which gave a 9:3:4 segregation in the F₂.

Note: The colour names in inverted commas are those used by Flory. The same I.C.T.A. terms do not always mean the same colour. For explanation see Discussion.

Flory also noticed that the white flowered plants had no red pigmentation on the stems in the light, and those with any other flower colour had reddish stems.