SUMMARY

1. Methods of vegetative and seed propagation of Lochnera rosea are described; seeds normally undergo a period of dormancy which can be broken by subjecting the seeds to a period of after-ripening.

2. Five flower colours, ranging from magenta to white are described and illustrated; the genetical basis of flower colour variation is not yet known but it has been established that all five phenotypes can exist as true breeding strains. Hybrid families gave various anomalous segregations which may have been due partly to contamination, partly to heterozygosity of the parents.

l.c. 3. Cyanic flowers are pigmented by a glycoside of Hirsutidin (3': 5': 7 - trimethyl - delphinidin) and all the flowers, pigmented or not, contain mixtures of the flavonols Quercetin and l.c. Kaempferol and an unknown anthoxanthin in varying proportions; there are differences in the amounts of flavonoids present in the eyes and lobes of the corollas. The anthocyanidin is accompanied by minute amounts of the glycosides, petunidin and malvidin.

INTRODUCTION

Lochnera rosea Reichenb. is a semi-woody perennial plant cultivated in gardens through the tropics and sub-tropics. It is occasionally found as a garden escape. A survey of the flower pigments of tropical plants (Forsyth and Simmonds 1954) revealed the presence of an unidentified anthocyanidin in the flowers of this species. This fact and the occurrence of flower colour variation in the species have prompted its choice as material for a biochemico-genetical investigation. The anthocyanidin has since been identified as the very rare hirsutidin (trimethyl - delphinidin), known previously only in Primula.