

1. INTRODUCTION

Pea is very popular vegetable crop in Egypt and many other countries all over the world. The total cultivated area of green pea reached 55955 thousands feddans in the season of 2005/2006 (Statistics of Ministry of Agriculture and Land Reclamation, 2005-2006). Improving the storage ability and nutritional value of pea are among the most important objectives of many pea breeding programs.

Detecting varieties among pea germplasm concerning storage ability and seed proteins content will be of great value to pea breeders. In addition, identifying the type of controlling gene effects, nature of dominance and narrow sense heritability for such characters will give pea breeder opportunity to obtain successful selection criterion and breeding method, which will be used in the breeding programs. It is worth mentioning that, some factors may affect the data recorded by the different pea breeders concerning proteins seed content in pea, such as genotype and its geographical origin and method of protein extraction. In addition, the effects of green seed maturity stage of pea on its nutritional value are also involved in this respect.

The objective of the present research was estimating the genetic parameters which are necessary to design successful pea breeding programs to enhance the nutritional value of green seeds, through improving storage ability, total proteins and sugars contents of green seeds.

