I. INTRODUCTION

The planted area with peach, apricot, pear and persimon is increasing rapidly, reaching about 76106, 7255, 17785 and 814 Feddens respectively (according to Statistics of Ministry of Agriculture in 1993). The rootstocks used to propagate the above mentioned fruit species are produced by seeds that having a relative varied dormancy period. Every year Egypt imports seeds of three of these rootstocks i.e., Nemaguard peach, Pyrus communis and persimon from abroad, while for apricot, its seeds are produced locally. Because of the out of control reasons, the imported seeds arrive often too late to enable fruit growers from, subjecting them at the proper time to the cold stratification for the desired duration needed for breaking their dormancy prior to their planting during spring. This fact is resulting in a very low germination percentage and dalays the emergence of seedlings. Moreover the developed seedlings show an obvious slow growth which will be reflected negatively on attaining them to the suitable vigour thickness for carrying out budding / grafting during the same season. The usual way to break dormancy of these species is stratification for varied periods 1-4 months at 2-5°C according to *cv.* and species. However, this procedure is time consuming, therefore finding of an alternative way instead of cold stratification to break dormancy of these seeds in a rather short time from one hand or at least to shorten the cold stratification period required from the other is highly needed for its great importance to nursery men. Therefore, preplanting or prestratification soak in several solutions of some chemical compounds were used for this purpose. In this regard soaking in solutions of GA, zinc sulphate, thiourea, potassium permanganate, citric acid and

cold stratification, besides the mechanical application of removing endocarp were included as means or ways for achieving this aim.

Therefore, the present investigation was designed to study the effect of these means either solely or combined to cold stratification on acceleration of dormancy breaking in seeds of these fruit species. Since, hancing germination process, increasing germination percentage and reducing time required for producing a standard rootstock seedling could be budded during the same season of sowing seeds certainly will be reflected beneficially not only on nursery men but also both fruit growers and consumers of these species.