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FRUIT GROWING TECHNOLOGIES - PRESENT AND PERSPECTIVES

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Abstract. Romanian fruit growing, under financed in the last years, owns predominant old plantings, with low profit, and the establishment of modern new orchards is chaotic and insignificant, regardless on the most favorable soil and climatic areas and on local tradition in fruit growing. To enter and perform on the fruit market, the Romanian fruit growers need to establish new plantation types, using valuable nursery material, adapted to consumer's preferences. They need to apply in the new orchards, intensive fruit growing technologies, to provide constantly superior and high quality fruit yields. Orchards must produce earlier and sustained in order to generate an earlier return on investment and improve profitability. At Research Institute for Fruit Growing Pitesti Maracineni (RIFG), according the variety, the fruit productions obtained in experimental high density apple orchard of 3,077 trees x ha^{-1} (3.25 m x 1.0 m), were 19.3 up to 30.0 t x ha^{-1} in the second year after planting and in the third year from 29.7 to 38.5 t x ha^{-1}. This work goal is to present and recommend some orchard training systems, their appropriate technology and to highlights some results obtained at some apple cultivars in these types of orchards.

Key words: high density, apple orchard.

1. Introduction

In fruit growing, especially at European level, the intensive fruit production system tend to generalization, together with continuous supply all over the vegetation season of all positive interactions between the natural growing factors and physical, chemical and biological vegetation factors, well balanced and allocated at optimum levels as quantity and quality, by application of the advanced technological measures which also protect the orchards against the risk factors.

All these technological measures are applied in high density orchards, established with valuable biologic material, consisting in high productive cultivars, grafted on low vigor vegetative rootstocks, in order to obtain very high fruit yields on the surface unit and a superior economical efficiency.

The actual relief and pedo-climatic diversity of Romania offer favorable conditions to grow a large panel of fruit species, but the Global Climatic Changes bring into the actuality new criteria for durable zoning of fruit species and adequate fruit growing technologies as well [2].

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