Adv. Hort. Sci., 2013 27(3): 96-97

The evolution of clonal heritage registry available at TOS.CO.VIT.

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The first clonal selection works in Italy were carried out by Breviglieri in 1943, when he noticed an intravarietal variability in the varieties cultivated in Tuscany. Since then, the study of clones has stimulated research for new genetic materials characterized by high performance.

The Council Directive 68/193/EEC of 9 April 1968 (concerning the marketing of material for vegetative propagation of vines) and subsequently the Presidential Decree of 24 December 1969 (n.1164) entitled "production and marketing of vine pre-multiplication material" gave a positive impulse to promote clonal selection activity. These decrees forced a gradual change from standard (of massal origin) to certified material (obtained through clonal selection activity).

The Institutes of Pomology of the Universities of Florence and Pisa, during the period 1960-1975, promoted research to establish and reorganize Tuscany's ampelographic platform. These studies focused on identifying suitable varieties for cultivation in different Tuscan provinces. The clonal materials, identified by both universities, were preserved at the Monna Giovannella farm (Andrenelli, 1984). In 1976 clonal selection activity continued with the National Research Council project entitled "Improvement of crops for food and industry by genetic interventions - sub project - grapevines to wine grapes". Upon conclusion of the project, a new project was sponsored by the Ministry of Agriculture and Forestry entitled "Viticulture: Production of vegetative propagation material of grapevine through by clonal selection" (Triolo, 1976; Pisani and Bandinelli, 1990). In Tuscany, research is still in progress in this sector, as carried out at public Institutions and privately, and through collaborations.

Early clonal selection activities focused on finding plants with high productivity and vigor. In recent years, the trend has been to select individuals phenotypically characterized by a reduced vegetative growth, moderate fertility and higher tolerance to the most common plant diseases. Due to desirable enological and technological aspects, other preferred features include looser clusters, smaller berries, good rate of polyphenols and anthocyanins, early ripening and high sugar content. The health status of selected material is guaranteed thanks to MiPAAF (Ministry of Agriculture, Food and Forestry) protocols.

Public interest in the genetic material obtained from clonal selection activities stimulated the creation (on 24th March 1977) of a center for premultiplication of grapevine material, thanks to an agreement signed between the Region of Tuscany and the University of Pisa. The agreement confirms the public interest for the multiplication and spread of plant material obtained through genetic selection of varieties and rootstocks deemed important for our national production chain (Triolo, 2010). The research institutions involved provided the first registered clones to this center.

Nowadays, TOS.CO.VIT. (Association of Tuscan wine-makers, founded on 29 January 2003) carries on the natural evolution of the activities that began with the Center for premultiplication of grapevine. This institution continues pre-multiplication activities and distribution of the genetic material – selected in Tuscany – with regard to the basic category. A total of 63 clones of European grapevine, selected in Tuscany, from different projects (both public research institutions and private entities) are managed, such as: 32 clones of Sangiovese, three of Prugnolo gentile, four of Ansonica, three of Canaiolo nero, one of Ciliegiolo, two of Colorino, two of Trebbiano toscano, two of Vernaccia di San Gimignano, two of Malvasia bianca lunga, seven of Vermentino, one of Mammolo, one of Aleatico, one of Barsaglina, two of Moscato bianco. In addition, two clones of hybrid rootstocks are also present.

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