Another proof of the applicability of the examined method in clonal selection is the fact that the same vine stocks of two extreme groups (the best and the worst wood maturation) are represented in each of the experimental years. Some of the vine stocks oscillate between neighbouring quadrants. This means that wood maturation is conditioned not only by season but also genetically. Obviously, all clonal selection including that of *V. vinifera* varieties is based on this principle. But the most frequently used selection methods for determination of rootstock wood maturation consist of subjective evaluations which sometimes lead to controversial results.

In accordance with these facts, this objective method, which determines not only wood maturity in successive years but also the genetic disposition of individual vine stocks with regard to wood maturation, contributes to successful selection work. Such an objective selection method, which considers the most important selection criterion of rootstocks – wood maturation – and which can be applied already in the first selections, saves the breeder a great portion of labourious work.

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The influence of clonal variation, pruning severity and cane structure on yield components of three Cabernet Sauvignon clones

M. KLIEWER and P. BOWEN

Department of Viticulture and Enology, The University of California, Davis, CA 95616, USA

A b s t r a c t : Yield components responsible for yield variation within and among three Cabernet Sauvignon clones free of all known viruses were determined over a 2-year period at Davis and over a 3-year period at Oakville, California. Average yield per vine in kg ranged from 7.3 for the lowest yielding clone to 15.8 for the highest yielding clone. Pruning severity, expressed as canes retained/weight of prunings, and yield per cane contributed 26 % and 72 % of the yield per vine variation respectively. Vine size, indicated by the weight of prunings, was unrelated to yield per vine. Important components of yield per cane were the portion of nodes at which shoots developed, the number of clusters per node position, and fruit-set. Yield per shoot was determined mainly by cluster number and fruit-set, which contributed 32 % and 62 % of the variation respectively. A difference in yield per vine of the two highest yielding clones resulted from a difference in the amount of fruit produced on spur shoots or shoots arising from latent buds. Yield per shoot of these two clones was equal but the highest-yielding clone bore fewer and larger clusters. The lowest-yielding clone exhibited poor fruit set which resulted from inadequate or inviable pollen. In one year, thicker canes were more productive due to better bud burst and fruit set.