

Acknowledgements

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Breeding grapes for basal fruitfulness

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Abstract: An attempt has been made to develop varieties with fruitful basal buds, as this character is of prime importance for any cultivar to be grown successfully on low-cost training systems like the head system. As a first step, the fruiting behaviour of several accessions from diverse geographic origin was made and certain genotypes were identified as promising sources for the desired character. Employing a microscopic bud analysis technique, bud fertility of these genotypes was measured from 2nd to 13th node and various biometric parameters were worked out to determine the extent of variability and inheritance of this character. The phenotypic and genotypic coefficients of variance were moderate to high and heritability estimate was convincing enough to begin hybridization. Extensive hybridization work was carried out for several years employing the identified parents and this has resulted in large number of hybrid progenies. The fertility analysis of these hybrids and their respective parents indicated that the varieties Bangalore Blue, Black Champa, Queen of the Vineyards and Convent Large Black are potential sources for basal fruitful buds. To incorporate this desirable character in the commercial cultivars like Anab-e-Shahi and Thompson Seedless, large number of crosses were made involving these cultivars and potential sources. From these progeny we were able to locate some promising hybrids which, besides possessing fruitful basal buds, are prolific bearers of high quality fruits.