



# Pruning studies in some white wine grape varieties for yield and quality parameters under Western Maharashtra conditions

S.U. CHALAK\*, S.S. KULKARNI AND A.V. KISHRSAGAR

Department of Horticulture, Mahatma Phule Krishi Vidyapeeth, Rahuri, AHMEDNAGAR (M.S.) INDIA  
(Email : sunilchalak@gmail.com)

**Abstract :** Present investigation, the effect of five different pruning treatments (4, 6, 8, 10 and 12 buds / cane) was studied on four white wine grape cultivars ( Viognier, Ugni Blanc, Sauvignon Blanc and Chenin Blanc). The response of each variety for yield and quality parameters viz., yield/vine, yield/ha, juice yield/ha and Brix yield was different for different pruning treatments. The acidity was positively correlated with bud number per vine and vis a vis. The TSS and TSS: acid ratios were found in desirable treat in severely pruned treatments. However, effect on juice recovery was non significant.

**Key Words :** Pruning , Wine grape, Quality

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## INTRODUCTION

The grape is one of the ancient fruit crop of India, which is cultivated on an area of 1,11,000 ha. with production of 12.35 lakh MT and productivity of 11.10 MT/ha. ( NHB, 2011). Approximately, 78 per cent of the total production, irrespective of the variety, is consumed as fresh in India (Chaddha, 2008). Arrival of more than 70 per cent of the total production in short span of time, i.e. March – April, lack of cold storage facilities and single type of market i.e. fresh fruit trade, creates glut in market, this leads to fall in prices. Hence, there is an urgent need to diversify grape uses, such as wine and juice which can solve the market problems. Thus, the development of suitable wine technology is a potential area for future research.

## MATERIALS AND METHODS

The research was conducted during year 2007-08 at All India Co-ordinated research Project on grapes, MPKV, Rahuri

on five year old, own rooted wine grape varieties planted with 3.0 x 1.5M spacing,. The experiment was laid out in Split Plot Design with four main plot treatments i.e. varieties { Viognier ( $M_1$ ), Ugni Blanc ( $M_2$ ), Sauvignon Blanc ( $M_3$ ) and Chenin Blanc ( $M_4$ )} and five sub-plot treatments i.e. pruning levels {(4 ( $S_1$ ), 6 ( $S_2$ ), 8 ( $S_3$ ), 10 ( $S_4$ ) and 12 ( $S_5$ ) buds/cane)} with three replications. Pruning was done in October 2007. Twenty five canes were maintained on each vine and observations were recorded on two vines of each replication.

## RESULTS AND DISCUSSION

The data for main and subplots are presented Table 1 and subsequently for interactions.

### Yield :

The data presented in Table 1 revealed that there were significant differences in main plots and for interaction effect. However, non-significant differences were recorded in sub plot treatments. Within main plot treatments the maximum yield

\* Author for correspondence