

INCREASING CHINESE CHESTNUT PRIMARY NUT WEIGHT AND BUR
PRODUCTION BY HAND REMOVAL OF SECONDARY BURS

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ABSTRACT

Treatments were imposed on shoots of 'Orrin' and 'Willamette' Chinese chestnut (*Castanea mollissima* Bl.) trees to characterize vegetative characteristics of bearing branches and to determine the effect of secondary (2^o) bur removal on primary (1^o) nut weight and 1^o bur production in the subsequent year. Treatments imposed in 2006 included hand removal of 2^o burs on shoots bearing 1^o and 2^o burs (R), 2^o burs not removed on shoots bearing 1^o and 2^o burs (N), and labeling of shoots bearing 1^o burs only (PO). Treatments were imposed on shoots with equal numbers of 1^o burs to ensure a similar crop load of 1^o nuts. In 2006, R and N treatments had greater shoot diameters, lengths, and numbers of leaves than those of PO treatments. R treatments on 'Orrin' trees had greater 1^o nut weight per shoot than the other two treatments. Results for 'Willamette' trees were generally similar to those of 'Orrin' trees. In 2007, R treatments on 'Orrin' produced a greater number of bearing shoots, which generally had more 1^o burs per shoot than the other treatments. Following an April 2007 freeze, 'Willamette' trees produced few 1^o burs but produced a saleable crop of 2^o nuts, whereas 2^o nuts produced in 2006 were unmarketable due to low nut weights.