SUBJECT: Yield Estimation and Voucher Collection in Repository Orchards

During the month of **September**, tree yield and maturity should be characterized by recording the mean number of nuts per cluster, percent terminals with clusters, and Julian date of 75% shuck split for each tree.

The **mean number of nuts per cluster** for a tree is obtained by noting the number of nuts in 10 clusters. If less than 10 clusters are present on a tree, then this parameter should be omitted and noted in the data sheet.

Percent terminals with clusters should be measured by randomly viewing 50 terminal branches around the canopy, and counting those that have clusters. We strongly recommend using a mechanical counter to make this easier and faster.

Julian date of 75% shuck split. It is important that we estimate the date at which 75% of the crop is ready to harvest i.e., individual valves of the shuck are separated to allow visibility of the nut. Weekly monitoring, starting with the onset of shuck split, should be sufficient to meet this goal. It is not necessary to record the shuck split percentage for a given tree until it reaches 75%, so only one date needs to be recorded. When the shuck split percentage on the tree reaches 75%, a 20 nut sample should be collected. Collect the samples into small paper sacks labeled with the **Cultivar name, Orchard, Row, Tree and Date.** It is important to always use the **Orchard** designation, since collection from multiple orchards creates the possibility of duplicate row-tree numbers.

Collecting the vouchers should be done in a timely fashion to avoid predation. Only marketable and sound nuts should be collected. If significant percentages of unmarketable nuts (sticktights, pops, viviparous nuts) occur, notations should be made in the field notes.