Patch Budding Pecans

Dean McCraw
Extension Horticulturist
Commercial Pecans and Tree Fruits

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Patch budding may be used on small tree trunks or branches 3/8 to 1 1/2 inches in diameter. Larger trees that have been cut back may also be patch budded by placing the bud on young vigorous sprouts forced into growth near the cut end of the limbs. Trees cut back in one dormant season may be patch budded in the spring of the following season.

This propagation technique is used in the spring or late summer. Budwood, which has grown during the previous growing season, is used in the spring. It is collected in late winter (February or early March) while the trees are dormant and kept in cold storage until budding season.

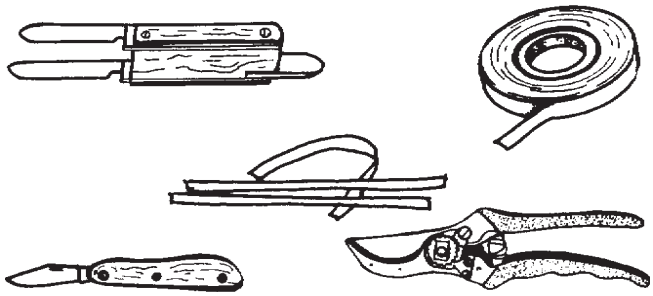
Current season's buds are sufficiently mature and available for patch budding by the middle of July under average Oklahoma conditions.

The two seasons for budding vary from each other as follows:

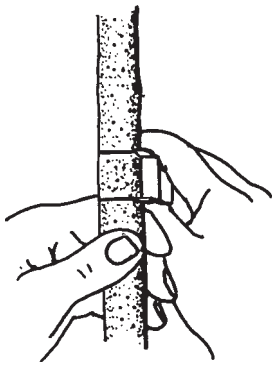
- **Spring Budding -** The bark of dormant budwood must be seasoned to induce slipping. This can be done by removing the budwood from cold storage four or five days before it is to be used and leaving it at room temperature. The wood may be left in the storage container or moist packing material.
  Where trees of the desired varieties are nearby, two-year-old wood on vigorous trees usually contain dormant buds as late as May or early June. These buds can be removed and used for patch budding at that time. This is an alternative procedure for spring budding. It eliminates the collection and storing of dormant budwood in late winter and artificial slipping of the bark.
- **Late Summer Budding -** Current growth is used disposing of the leaf stalk, found immediately below each bud.
  Precaution - From the time the first cuts are made until wrapped the wounds should not be exposed to sunlight or wind any longer than absolutely necessary. Keep the budwood wrapped in a damp material such as burlap to prevent drying. Handle budwood carefully; avoid unnecessary rubbing, bruising, or splitting of the patch containing the bud.

The various steps in patch budding are as follows:

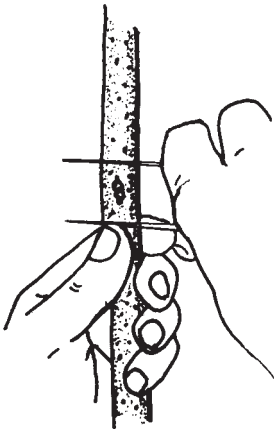
- Two or three weeks after insertion of the bud, determine if the patchbud is green by nicking it lightly with a knife point.
- Good judgment is required at this time to determine whether to force the live buds then or the following spring.



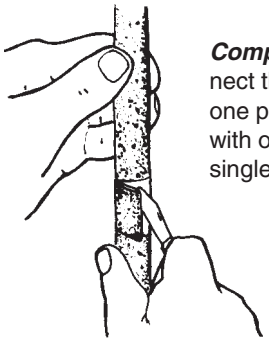
Assemble tools needed. These are a sharp twin-bladed knife; polyethylene plastic tape, masking tape, or rubber budding strips; hand shears, and a sharp single-bladed knife.



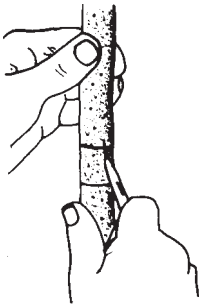
Double cut the budwood. Center a plump, healthy looking bud between the budding knife blades. Begin on the left side of the bud and with firm pressure rotate the knife to the right. Make the double cut through the bark and approximately 11/2 inches long.



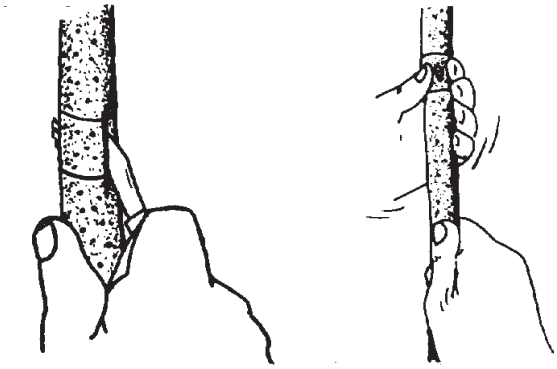
Double cut the stock. Select a smooth, convenient location on the stock. Make a double cut approximately 1 1/2 inches long, by rotating a double- bladed budding knife around the stock.



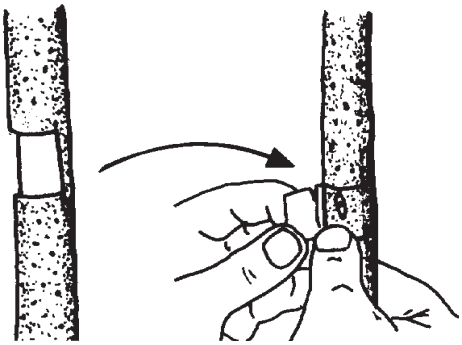
Complete preparation of stock. Connect the double cut on the right side with one perpendicular cut. This can be done with one of the budding knife blades or a single-bladed knife.



Raise the bark on the stock with a flip of the knifepoint or the tongue attached to the butt end of some budding knives.



Complete preparation of the patch for removal from the budwood. Connect the double cut on both sides of the bud with two perpendicular cuts. Loosen the patch containing the bud at all four corners with the knife point. Hold the patch with the bud located between the left thumb and index finger. Twist the left hand toward either direction. With the right hand, rotate the budstick in the opposite direction.



Transfer the patch from budstick to stock. When completely loosened, pick up the patch containing the bud between the knife and thumb or finger and thumb and quickly place in the matrix on the stock flush with the right side of the connecting (perpendicular) cut made on the stock. The bark flap on the stock is then creased and torn or cut to fit the patch. A slight overlap of the bark flap over the patch can be left.

Seal the patch. Wrap with polyethylene plastic budding tape, rubber budding strips, or masking tape. Several other materials, such as waxed cloth and grafting tape, may be used successfully. Pull the wraps firmly and allow them to overlap slightly to seal out excessive air and water and to prevent drying. Cover all exposed areas well. Allow the bud to show through between the wraps.

Buds inserted by mid-June and well united to the stock are commonly forced the same season. Others may be forced the following spring.

- To force transplanted buds, cut off the stock six or eight inches above the bud. This "stub" will serve as a support to which the young shoot arising from the bud can be tied. Do not allow growth to develop on this section of the stock during the first growing season. At the end of the first growing season, the stock can be cut off smooth, immediately above the new shoot.
- Durable wrapping materials may need releasing after the wound of the budding operation has healed. Under good growing conditions this will be about three weeks after budding. This can be done by cutting the tape or other wrapping material with a knife blade on the backside of the stock opposite the transplanted bud.

Based on original material prepared by E. L. Whitehead.

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