### California Avocado Society 1941 Yearbook 26: 43-44

# "Do's" and "Don'ts" in Mango Budding

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As we are not in the mango budding business, and with the thought of helping some other amateur horticulturists interested in this particular phase of mango culture, I am going to give you a few "do's" and "don'ts" in connection with budding mangos. First, and of prime importance, the seedling should be in a healthy condition and just beginning to put out a new growth. The bark should be green where the bud is to be inserted and of approximately the same diameter as the bud shield. This means that one cannot take a row of seedlings and go right down the row inserting buds as one comes to them for mango seedlings do not put out growth uniformly as citrus seedlings do. One should be careful to have the seedlings to be budded just at the aforementioned stage.

## **SELECTION OF BUDWOOD**

Secondly, but probably of as great importance as the condition of the seedling, is the stage of development of the bud wood from which the eye is to be cut. One should select this bud wood with the greatest of care for herein lies a main fault, if the development of the bud-eye is not just at the stage before the actual bud comes out. Right here let me say that I have inserted buds after the bud-eye had broken and I could see the bud growth appearing in the eye; buds at this stage seem to live better than any other. Each bud inserted should be at least swelled to the utmost preparatory to its bursting forth, and contrary to the belief of a good many so-called experts, it is not necessary to use secondary growth for bud wood. We have found that primary wood fully developed is far better.

The next step, of course, is slicing off the shield just deep enough not to injure the budeye, the length of the shield depending upon the size of the bud-eye and the diameter of the stock. We will not go into how the bud shield should be sliced for most everyone interested in this sort of work knows pretty well how to handle a budding knife. Suffice it to say that the wood should be carefully removed from the bud shield and after a slit about the same length as the bud shield has been made in the root-stock seedling, with the T crossed at the top or bottom as you prefer, the edges where the shield is to be inserted are slightly raised to facilitate the introduction of the shield. This should then be gently and firmly inserted and the bud shield allowed to split its way for a short distance, say a quarter to a half inch beyond the cut made with the knife in the bark of the rootstock seedling. This procedure I feel tends to glue the bud shield tighter to the wood of the seedling than if the opening is made easier with the knife. One will find, of course, that with the growth of the seedling at the proper aforementioned stage, the bud shield will slide very easily into position.

#### WRAPPING

The next really important procedure is the wrapping. Because of the fact that it has been found advisable to leave wraps on longer than with citrus budding, it was learned that a little turpentine added to the beeswax in making one's budding cloth helps to stick the budding wraps much tighter and eliminates the possibilities of moisture entering the wound and the wrap coming off. The speaker uses in this connection about one-half pint of turpentine to three pounds of wax. The budding cloth should be of good, smooth, texture as far as the application of the wax is concerned, but here again, those especially interested in this sort of endeavor will know how to accomplish the end.

In wrapping the bud shield it has always been the speaker's practice to start somewhat below the bottom of the shield, wrapping upward in a spiral direction, overlapping slightly each time, and having approached the bud-eye to leave the same open, continuing on above the bud-eye to a little beyond the end of the wound where the wrap is firmly secured. Then it has been the speaker's practice to take a short length of the budding cloth strip, usually about half a strip, and wrap firmly but gently over the eye. This particular wrapping procedure has its advantages in that after the period of time has been allowed for the bud to unite with the wood of the stock, it appears that sometimes the bark has not healed sufficiently to hold the bud shield firmly in place and a great many times if the wrap is completely removed when the bud-eye seems to have united with the wood of the stock, the bark, when the wrap is completely removed, will flare out and allow the lower part of the bud shield to become loosened from the wood and it will act as a pry to sever the adhesion of the bud-eye. This fault in a great deal of mango budding can be eliminated by leaving the wrap on for an indefinite period. However, the wrap over the bud-eye should be removed in accordance with the growing conditions prevailing—in from ten days to three weeks. One should be watchful of this point, for to leave the cloth over the eye too long will smother it and to take it off too soon, especially in inclement weather, will cause the bud-eve to shrivel and die.

Previously, the root-stock seedling should have been well staked so that wind or other influences cannot shake it, as an emerging bud sprout is exceedingly tender and the slightest jerk will snap it off. The speaker has used in this regard soft cord to gently hold the bud sprout and give it an upward straight growth, which sometimes does not seem to be natural for it; for without directing, it has been noticed that at times they will grow straight out from the root stock seedling a distance of six inches before they tend to curve upward. After the bud sprout has attained its first full maturity of leaves the particular work of budding is ended. From then on is a matter of growing the bud carefully and keeping off diseases.

By following this method and the points brought out herewith, the speaker has obtained on numerous occasions alive to full maturity 85% or better of buds inserted.

Proc. Fla. State Hort. Soc., 1940.