# Aftercare and Parafilm: A Review

by JOSEPH W. HICKMAN

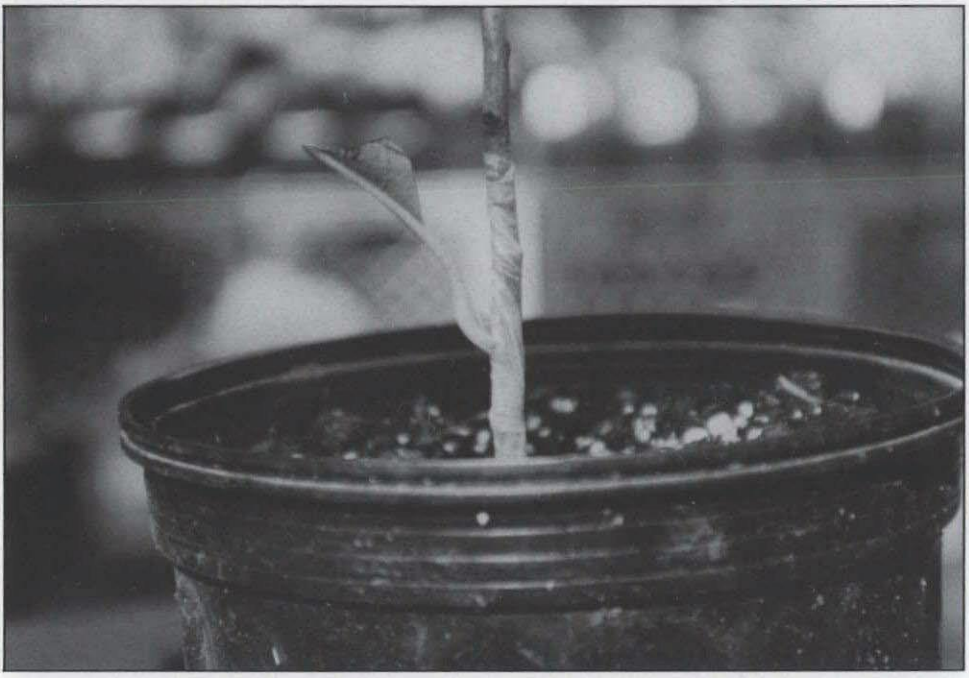
The great improvements in cutting propagation techniques and the giant strides in tissue culture have decreased the importance of grafting and budding. The benefits, especially to our commercial growers, are obvious. However, many plants remain difficult or impossible of reproduction by these methods. Some persuasive arguments remain for the art of grafting and budding. The hybridizer with a few seedlings of a cherished cross can bloom them, on the lateral branches of a mature tree, in two or three years. Otherwise, he must wait ten, possibly more, years for a reject or that big lulu. Some of us who have seen too many frosty mornings just want to bloom quickly, in our own yard, one we admire. It is certainly easier, quicker, and less expensive to obtain or send a relatively rare cultivar as a stick of scion wood than to await the finished product.

Witness the current status, in this country [Mr. Hickman gardens in Benton, Illinois USA.] of an admired hybrid, *Magnolia* 'Albatross.' It is safely in the hands of at least six of our most experienced commercial growers and several skillful amateurs, via one quite traveled bud in the late spring of 1990 (reputedly London to Sweden to Switzerland to North Carolina to southern Illinois). Enough wood should be available this year for the rest of our magnolia nurserymen. Then, some time must elapse, probably as least one more year, before scion wood is plentiful enough to test its rootability. (Prediction: putative parentage indicates that it should root readily.)

This year the available mature buds will likely be converted into chip buds, to make it go as far as possible; cuttings would involve several scarce buds. Hardiness must also be tested; possibly this southern Illinois winter will provide at least a partial answer. (Prediction: It will exhibit good hardiness.)

While these and other questions are addressed, our nurserymen, by nature high-rolling gamblers each and all, must build up enough stock of this plant to offer it for sale. Grafted plants, rooted cuttings, possibly tissue cultures may become available. So, in a few years it will likely be possible to purchase a finished product, planting out size; in the meantime I would suggest storing up more than a few pesos in the old checkbook. The alternative: graft or bud! Yes, you can, too: folks have been doing it since the Roman Empire or before. (Suggestion: do not count on learning with 'Albatross' wood, try a soulangiana first.)

I make the assumption that every



*Chip bud of* Magnolia *'Albatross,' firmly wrapped in parafilm.*

Magnoliaphile can graft and bud. If you do not, how-to articles, books and informants abound. The show by Mr. Robert Tomayer of the fabulous Wavecrest Nursery & Landscaping Co., 2509 Lakeshore Drive, Fennville, Michigan 49408, given at Philadelphia, demonstrated how easy and pleasurable this simple carpentry can be. This is yet another of the many reasons for attending the meetings of our Society.

Ah, so! With that incredibly informative and interesting exhortation, as usual I will launch right into the very bosom of my subject. After I have grown or obtained suitable understock and scion wood, from my own plants or other source, made a graft or chip bud, some things remain. In two or three weeks, depending on weather, timing and other factors, I am able to see the good callus that indicates a "take." (A grafter never acknowledges failure; sometimes a compost pile runs so low that it must be replenished.)

Some effort has now been expended; some folks say that we are 60% of the way home to the finished product. For spring side veneer grafts or chip buds, when this sign of union is obvious, off comes the wrapping or covering, which has varied with the type of operation, size of material, whatever was handy, and whim.

This covering, usually polyethylene, has often been strips for "T" and chip buds, squares for side veneer grafts. One-half inch and one inch tape, made especially for the purpose, and rubber bud strips are

available from any grafting supply house, at modest cost. Bread wrappers work just fine. The half inch tape can be used in lieu of bud strips; I still find use for both. The 3/16" width, six inch length, .020 gauge strips are okay for most magnolia work, stretch enough to wrap securely, not easy to wrap too tightly.

Now, I want to partially remove and re-wrap for a while, but not with plastic this time. If callus seems ideal, this is not strictly necessary, but it makes me feel better. I use a one inch by four inch strip of Parafilm. This material has come to be old hat with grafters and budders, who adopted it. It was developed and marketed quite a few years ago by the American Can Company, primarily as a laboratory aid to cover beakers, test tubes, etc. It comes in rolls, four inch I have found ideal for our purposes, and has a backing, similar to wax paper, which is removed. I cut one inch strips, adequate for almost any wrap, discard backing, start at the bottom and lap. It should stretch to about three times its length. This is important.

Again, assuming that callus indicates good union, I wrap, from the bottom up, leaving the bud or unattached portion of the side veneer exposed this time, but pulling the Parafilm through the crotch of the latter, to make an absolute seal from water. Rain water may not hurt, but city water can bring on tertiary rigor mortis. Good pressure self seals this film.

If the graft or bud has made any movement, looks good, or if the notion strikes me, sometimes I break off the stock a few inches above, and usually toward it, as shade and to force growth. Sometimes I just cut the stock off about three inches above, instanter, leaving the stub for future support. I relate these alternatives to impress you that I am a true perfectionist, relying only on rigidly uniform, proven, scientific methods at all times.

There comes a time in the summer when it is no longer prudent to force growth, usually the last of July here. After this, the top of the stock is not removed, but I again remove the covering, to observe the state of the union. (Sounds like a political speech.) If all appears well, I rewrap, at least for a few weeks, with Parafilm only. For very late in the season grafts or buds, I wrap over this with a bud strip, quite loosely. The climate (weather?) will deteriorate both with no girdling or stricture. I have noted no adverse effects if this remains on for part or even all of the winter.

You will have deduced that I refer to stock in containers, out of doors. The same treatment is given stock in the ground. I like to put early spring grafts on the south or southeast, in the summer on the north or shade them with a dry *Magnolia grandiflora* leaf.

The laboratory at your local hospital will likely give you a foot or two of Parafilm. If all else fails, write and I will send you a sample to try.

Chip buds? Try making the cut on the stock UP, not DOWN. Keeps the top of bud from popping away from the stock. Try it! You will like it. If you do cut down, put a piece of 3M freezer tape around the top part

of the chip when rewrapping and leave it on.

Pay no attention to the books and articles showing short, deep chip buds in various diagrams. Some of these diagrams originated a hundred years ago, referring to grapes, etc. They have been slavishly copied. For magnolias, don't you believe it! Make a thin, "big ole chip," at least an inch and one-half in length, if the size of the stock and scion will allow at all. You will win!

Scion wood mailed to you? Soak it a while in water, room temperature. If it has really traveled, overnight won't hurt. For this wood, or if any hint of mildew or mold exists, dip in weak fungicide or one part Clorox to ten parts water one minute, rinse well.

Please realize that these suggestions are for amateurs like the writer, with limited facilities. For many years I have had a small greenhouse, but my limited experience with "bench grafting" has largely been with *Magnolia grandiflora* cultivars. I am not presuming to advise knowledgeable propagators, but simply to assure every gardener that you really can graft and bud if you will just try.

Magnolia, with its relatively thin bark, may not be quite so easy to work with as persimmon, bald cypress, apple and other fruit, but it really is quite biddable, more so than evergreens. Cleft grafts, whip and tongue, "T" buds, patch buds, etc., are all possible, but a beginning repertoire of chip buds and side veneer grafts will suffice in most cases. (Suggestion: try with persimmon, apple or graduate right to any of the deciduous magnolias. Hold up on *M. grandiflora*, it's a little picky but can be done out of doors, and that's another story.) Good luck, good growing, may the late freeze never land in your yard. And try Parafilm! ❧

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# 'Butterflies' is patented

Phil Savage's hybrid of *Magnolia acuminata* x *M. denudata*, which he named 'Butterflies,' was a big hit at the meeting he hosted in Bloomfield Hills, Michigan, in May of 1988. The members who attended the meeting seemed to be magnetically drawn to the plant, and it was a real beauty in perfect bloom.

'Butterflies' is a neat, upright pyramidal tree with a single trunk, symmetrical branches, and abundant dark green foliage. The precocious deep yellow flowers are upright, cup-shaped, with 10-16 tepals, and are intermediate in size between the parents. The stamens are red, as in the pollen parent. The yellow color of the tepals is the darkest of the presently available early-flowering yellow cultivars and does not fade as the flower ages. The plant is truly precocious as leaves do not appear until after the tepals have fallen. This clone is hardy in USDA zones 5-9. Phil Savage and Roy Klehm applied for a plant patent of 'Butterflies,' and the plant was granted PP# 7456 in 1991.

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