

Plant Talk

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Timing is Everything!

by Michael Yanny

I've heard it said a hundred times, "in life, timing is everything".

I believe this is true in life, love and horticulture. Success or failure depends on it.

In my life, if I hadn't met my love, Lori, when I was a 21 year old, wide-eyed hippie working at Locker's floral and greenhouse, I would have had a completely different life. You wouldn't be reading these words right now because I wouldn't be working at Johnson's. It's not unlike the movie, *It's a Wonderful Life*, only substitute Menomonee Falls for Bedford Falls.

If I had met Lori earlier, when I was a bit less outgoing, we probably wouldn't have talked. I probably wouldn't have met her later, because I would have taken a job in Texas.

Timing is everything. Things have to happen at the right time in order to succeed.

This is true in Horticulture as well. Success or failure is often determined more by when you do something, rather than how you do it. Pest control, plant propagation, B&B digging, fertilization, weed control, plant selection, and pruning are some of the horticultural activities that have critical timing components that need to be understood in order for success to be accomplished.

If one wants to control Birch Leaf Miner, by preventing the organism from feeding on the leaves of Paper Birch trees, you must kill them when they are in the young larva stage. Various pesticides will work but the key element is to spray them when they are in this most vulnerable stage. I have found phenological relationships (bloom times) to be the most useful tool to zero in on this time.



In this case that would be when *Spiraea x vanhouttei* blooms. Some other indicators which would be blooming at the same time include: Black Locust, (*Robinia pseudoacacia*) and Prairie Crabapple, (*Malus ioensis*). This type of Pest management information is available in a book, *Coincide—The Orton System of Pest Management*, published in the late 1980s. Timing is the key.

I have used phenological relationships to determine when I should begin propagating shrubs from softwood cuttings each year. I get the houses ready to stick cuttings when the French Hybrid Lilacs (*Syringa vulgaris*)

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Plant Talk Available Online

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begin blooming. Once that is done, I assess the wood of the Redbud Crabapple (*Malus x zumi* 'Calocarpa') and Grefsheim Spirea (*Spiraea x cinera* 'Grefsheim') to see if it has hardened up enough to take. When the young Crabapple shoots have elongated to about 8" in length and snap when I bend them near their base, they are ready to go. With the Spirea, there should be a bit of brown wood at the base of the cuttings, indicating that the wood is just starting to lignify (get woody). We use the top part that is still soft. Success is closely linked to the timing and being able to measure the timing from one season to the next.

Fertilizing at the right time can be critical to stimulating plant growth or disastrous if done at the wrong time. I have probably killed more plants, unintentionally, from fertilizing than any other way. My mistake has almost always been putting the wrong fertilizer on my containers too late in the growing season. Slow release fertilizers are wonderful when used properly but if they are applied on a crop too late in the season they will not run out before going into polyhouses for the winter. This will often result in a buildup of salts in the media and will kill the roots of the plants. You can kill a lot of plants this way. I know. I've done it. You have to pay attention to the timing of when you apply fertilizers and how long they will last. Again, timing is critical.

Pruning is a somewhat anxious activity that takes years of observation to get good at. How you prune differs from species to species and often times even between cultivars. When you prune can be critical as to what kind of responses you'll get from your work. When we prune very young trees (2 to 5 year olds) at the nursery, we do the bulk of the heavy pruning in April and May and gradually reduce the severity of the cuts until we pretty much stop by mid-July. In early spring, before they leaf out, we cut 3 year old Bur Oak (*Quercus macrocarpa*) to a stub that is 1" to 2" tall. We select a single shoot that comes off the cut-back stub. We force that shoot up a stake to form the nice straight trunk that most of you want to see with your trees. We have to do this in the spring or we would not get the major push we need to develop a 4' to 5' tall trunk in one growing season. Those of you familiar



Top: Hawthorns respond beautifully to dormant spring digging.



Right: Magnolias are best dug in spring before they leaf out.

with renewal pruning may notice that when you do this type of pruning on shrubs in early spring you get much quicker development than if you do it in late spring or later. It is the same timing concept we use for our young trees in the nursery. Timing your pruning to the best time rather than when you have time, can really make you look good.

The best time to dig, B&B, Hackberry (*Celtis occidentalis*) is in spring before they leaf out and the ground conditions allow you to do it. Black Cherry (*Prunus serotina*), Alders (*Alnus* sp.), Musclewood (*Carpinus caroliniana*), Ironwood (*Ostrya virginiana*), and Redbud (*Cercis canadensis*) are a few of the plants that should be moved at this time for best results. Some plants respond best if they are dug just as the buds are beginning to swell but before the leaves have expanded. Two of these are Hawthorns (*Crataegus* sp.) and Birches (*Betula* sp.). Some trees can be dug with excellent success in the fall after they color up until the ground freezes and again in spring before they leaf out. Honeylocust (*Gleditsia triacanthos inermis*), Sugar Maple (*Acer saccharum*), and Kentucky

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Coffeetree (*Gymnocladus dioica*) are examples in this category. If you dig outside of these windows of time, the chances of transplant success decrease. This is why our nursery has 15 acres of irrigated holding yard. We can dig the material at the proper time and then hold it for you when the plants can no longer be fresh dug from the field. We pay close attention to the timing of our digging to make sure the plants suffer the least amount of stress.

Weed control success is often times determined by the timing of the operations. Best results with controlling Canadian Thistle are with spraying them with post emergent herbicides when they are in the bud stage just before flowering. One can kill burdock by digging them with a sharp spade just below the soil surface when they are in that same flower bud stage. Pre-emergent herbicide applications should be timed to be applied before the major weed germination periods in the early spring and again in mid-August. If you ignore these timing issues your weed control will likely be spotty at best.

Selecting the best plants whether it is for new cultivars or for a special landscape client can be done at certain times of the year. For instance, if I am looking for improved individuals of Musclewood (*Carpinus caroliniana*) with outstanding fall color, I need to be in the fields at the time they are coloring to make my selections. An arborist that is looking for trees for use as street trees will find it best to come out to Johnson's Nursery's fields in the winter so that he/she can select plants when they can easily see the branching structure to assure excellent clearance in the future. Arborists typically want trees with very strong leaders that ascend quickly. If you are looking for ornamental crabapple trees that are scab resistant, you can make your best choices by looking at the trees in the nursery in late summer when the scab organism is most prevalent. When you look at something is sometimes as important as what you are looking at. You are always welcome to tour our fields!

I could go on and on and on about timing and its importance in horticulture. It is, in my opinion, the single most important aspect of horticulture that one needs to understand to be successful.

For the 104th time, "timing is everything".



5' to 7' Japanese Tree Lilac liners are dug bareroot in early spring before they leaf out.



Sorry, I'm out of time!

Dig Times for Trees

Botanical Name	Common Name	March	Early April	Late April	Early May	June	July	August	September	Early Oct.	Late Oct.	November
<i>Acer x freemanii</i>	Freeman Maple				Yellow					Yellow	Yellow	Yellow
<i>Acer ginnala</i>	Amur Maple				Yellow					Green	Green	Green
<i>Acer miyabei</i> 'State Street'	State Street™ Miyabe Maple				Yellow					Green	Green	Green
<i>Acer x 'Norwegian Sunset'</i>	Norwegian Sunset Maple				Yellow					Green	Green	Green
<i>Acer x 'Pacific Sunset'</i>	Pacific Sunset Maple				Yellow					Green	Green	Green
<i>Acer platanoides</i>	Norway Maple				Yellow					Green	Green	Green
<i>Acer rubrum</i>	Red Maple				Yellow							
<i>Acer saccharinum</i>	Silver Maple				Yellow						Yellow	Yellow
<i>Acer saccharum</i>	Sugar Maple				Yellow					Green	Green	Green
<i>Acer tataricum</i>	Tatarian Maple				Yellow					Green	Green	Green
<i>Aesculus</i>	Buckeye/Horsechestnut			Yellow								
<i>Alnus</i>	Alder			Yellow								
<i>Amelanchier</i>	Serviceberry										Green	Green
<i>Betula nigra</i>	River Birch			Yellow								
<i>Betula papyrifera</i>	Paper Birch			Yellow								
<i>Carpinus caroliniana</i>	Musclewood			Yellow								
<i>Carya cordiformis</i>	Bitternut Hickory			Yellow								
<i>Carya ovata</i>	Shagbark Hickory			Yellow								
<i>Catalpa speciosa</i>	Northern Catalpa			Yellow								
<i>Celtis occidentalis</i>	Hackberry			Yellow								
<i>Cercidiphyllum japonicum</i>	Katsura Tree			Yellow								
<i>Cercis canadensis</i>	Eastern Redbud	Yellow		Yellow								
<i>Chionanthus virginicus</i>	White Fringetree			Yellow						Green	Green	Green
<i>Cladrastris kentukea</i>	American Yellowwood			Yellow								
<i>Cornus mas</i>	Corneliancherry Dogwood			Yellow					Yellow	Green	Green	Green
<i>Corylus colurna</i>	Turkish Filbert			Yellow								
<i>Crataegus</i>	Hawthorn		Yellow									
<i>Fagus</i>	Beech			Yellow								
<i>Fraxinus</i>	Ash			Yellow								
<i>Ginkgo biloba</i>	Maidenhair Tree			Yellow						Yellow	Green	Green
<i>Gleditsia triacanthos</i>	Honeylocust			Yellow						Yellow	Green	Green
<i>Gymnocladus dioica</i>	Kentucky Coffeetree			Yellow						Yellow	Green	Green
<i>Juglans cinerea</i>	Butternut			Yellow								
<i>Juglans nigra</i>	Black Walnut			Yellow								

 = Can be safely dug at this time

 = There is some risk in digging at this time

 = Johnson's Nursery does not recommend digging at this time

Dig Times for Evergreens

Botanical Name	Common Name	March	Early April	Late April	Early May	Late May	June	Early July	Late July	August	September	Early Oct.	Late Oct.	November
<i>Abies</i>	Fir		Can be safely dug	Can be safely dug	Can be safely dug	Some risk			Can be safely dug	Some risk				
<i>Buxus</i>	Boxwood	Some risk	Can be safely dug	Can be safely dug	Can be safely dug	Some risk	Some risk	Some risk					Some risk	Some risk
<i>Chamaecyparis pis.</i>	Falsecypress		Can be safely dug	Can be safely dug	Can be safely dug	Some risk		Some risk				Some risk		
<i>Juniperus chinensis</i>	Juniper		Can be safely dug	Can be safely dug	Can be safely dug	Some risk		Some risk				Some risk		
<i>Juniperus virginiana</i>	Juniper		Can be safely dug	Can be safely dug	Can be safely dug	Some risk		Some risk				Some risk		
<i>Larix</i>	Larch	Some risk	Can be safely dug											
<i>Picea abies</i>	Norway Spruce		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Picea glauca</i>	White Spruce		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Picea glauca var. densata</i>	Black Hills Spruce		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Picea omorika</i>	Serbian Spruce		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Picea pungens</i>	Colorado Spruce		Can be safely dug	Can be safely dug	Can be safely dug	Some risk		Some risk	Can be safely dug	Some risk				
<i>Pinus aristata</i>	Bristlecone Pine		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Pinus bungeana</i>	Lacebark Pine		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Pinus cembra</i>	Swiss Stone Pine		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Pinus flexilis</i>	Limber Pine		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Pinus grif. x strobus</i>	Hybrid Pine		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Pinus heldreichii var. leu.</i>	Bosnian Red Pine		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Pinus koraiensis</i>	Korean Pine		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Pinus mugo</i>	Mugo Pine		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Pinus nigra</i>	Austrian Pine		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Pinus peuce</i>	Macedonian Pine		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Pinus strobus</i>	White Pine		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Pinus sylvestris</i>	Scots Pine		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Pinus wallichiana</i>	Himalayan Pine		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Pseudotsuga menziesii</i>	Douglas Fir		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Taxus</i>	Yew		Can be safely dug	Can be safely dug	Can be safely dug			Some risk	Can be safely dug	Some risk				
<i>Thuja occidentalis</i>	Arborvitae		Can be safely dug	Can be safely dug	Can be safely dug	Some risk		Some risk	Can be safely dug	Some risk				
<i>Thuja plicata</i>	Giant Arborvitae		Can be safely dug	Can be safely dug	Can be safely dug	Some risk		Some risk	Can be safely dug	Some risk				

 = Can be safely dug at this time

 = There is some risk in digging at this time

 = Johnson's Nursery does not recommend digging at this time