

# pfm bonsai studio ramblings



August 2013 Volume I

AUGUST is arriving with cooler temperatures and soft rain. The rain is giving me time to finally write this month's ramblings. All the heat and rain from June and July has the bonsai and the gardens growing at an incredible rate. So much time has been devoted to trimming and shaping.

## Last chance to register

### for ABS 2013



As most of your know, my local club Mohawk Hudson Bonsai Society is the co sponsor for the American Bonsai Society Annual Learning

Seminars in Saratoga Springs, NY September 12-15 this fall.

ABS has put together an incredible teaching weekend with 12 teachers from Canada, USA, and Mexico.

The weekend is a great bonsai experience for all. Each participant can choose 4 classes from a catalogue of 44 classes designed for all levels of experience in bonsai.

Check it out at [www.loveofbonsai.com](http://www.loveofbonsai.com)

The teachers include:

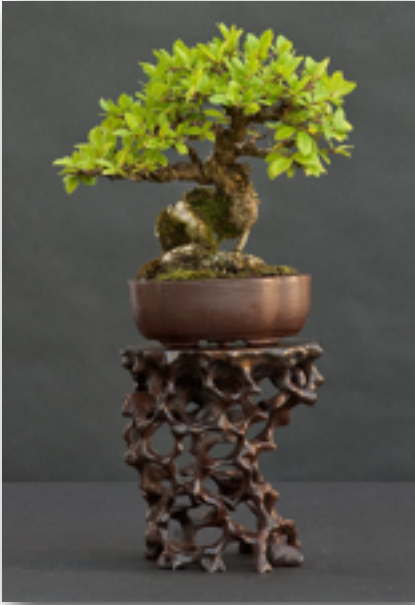
- Julian Adams
- Enrique Castano
- Jim Doyle
- David Easterbrook
- Doug Hawley
- David Knittle
- Ted Matson
- Frank Mihalic
- Jonathan Maples
- Pauline Muth
- Andy Smith
- John Thompson
- Ed Trout

We have a great exhibit, lots of vendors, great raffles and wonderful surprises for all. As chairperson, I personally invite each of you to come and have a great weekend with many bonsai friends.

*Pauline*

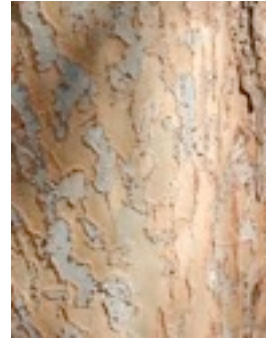
## Featured Species of the Month: Ulmus parvifolia Chinese Elm

By Pauline Muth copyright 1997, updated 2001,2002,2004,2008,2012



The Chinese Elm has shiny, smooth, small, single toothed leaves placed alternately on fine branches. The leaves are slightly asymmetrical. It is extremely twiggy. The branches take 2 years to mature. It has fine ramification making it an ideal specimen for bonsai in all styles. The bark flakes with time giving the trunk a mottled appearance as the tree matures. It is a rapid grower in the spring that needs frequent trimming to develop a well-branched masterpiece. There are numerous varieties used in bonsai. Each has its own features. The 'Brea' variety has pendulous branches. "Nire" is wonderful for mame. There are cork barked varieties that develop beautifully corked

trunks in a reasonable length of time.



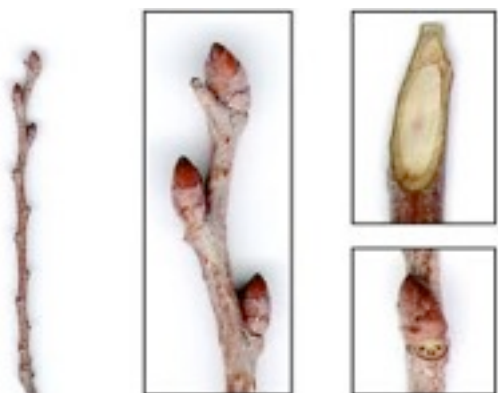
Often considered an evergreen elm because it can maintain leaves throughout the year when grown in a frost-free environment.

The head tends to be rounded when grown freely. The branches often form dense intertwining mats. Care must be taken to trim frequently to avoid this becoming a problem.

In warmer zones, the tree can be treated as hardy and stored for winter. It will not take long hard frost periods. Experience has taught me that Chinese Elms raised entirely in the north can be winter stored but if developed in frost free regions, treat them as semi hardy and give frost free winter protection.



When **trimming branches**, take care to select the cutting point so that the new branch will develop in the direction planned. Remove buds or young branches, that point upwards or downwards early in spring. It will take a **hard pruning** early in the spring before the buds swell. Hard pruning done later in the season can result in dieback. If this late pruning is necessary, be sure to leave a stub that can be removed during the next spring. Fall produces a natural leaf drop as the temperatures decline. The tree should be brought indoors after all leaves have fallen. The tree will then bud out in late December through February.



Specimens grown from seed or cuttings often produce straight trunks well suited for group or forest plantings. **To develop good taper** for individual specimens, the tree must be kept cut back severely as it grows. Sacrifice branches grown low on the trunk can also be used to develop a good trunk. The scarring that will develop when these branches are eventually

removed can add to the character of the tree. Many imported trees are air layered from large in ground trees. The branching on these trees can be very unusual and challenging. Sometimes young trees are grown with exaggerated bends and twists that may or may not appeal to every artist.

The tree lends itself to many different styles both as individual specimens and in multiple and forest plantings. Its ability to maintain complex branching structures even at extremely short heights makes it ideal for mame and shohin work.

**Outdoors in the growing season**, leaves can burn easily so provide a lightly shaded growing area. Keep the bonsai well watered. Watch for heat and dryness stress. Stress damage will affect the tree for the remainder of the summer. Gypsum added to your soil mix can help the plant resist burning. It will recuperate the next spring. Take care to give developing trees adequate water during the summer months. Older specimens should be **kept evenly moist** but they will not require the extra water younger trees need. The twigs of the tree are easily killed by winter frost so winter protection is needed. Cool greenhouse storage is ideal.

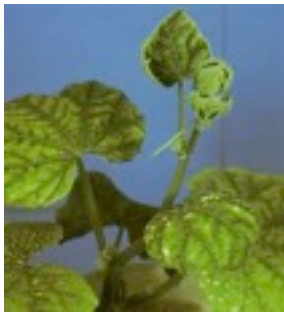
**Fertilize** with a weak water-soluble solution throughout the growing season or use a time release fertilizer. Add a dose of trace elements in the early spring. Use of an iron additive twice in early spring produces excellent green color. In the fall, fertilize with Potash to stabilize the roots for the winter. Fall is also a good time to apply phosphate but avoid nitrogen compounds, as they will provide weak growth that will die in winter and weaken your tree. Elms appreciate a symbiotic fungus in the soil. Spores are available commercially.

Young trees need **repotting** every other year. Although fast growing young trees often require annual repotting mature trees should be checked and repotted only when needed. All repotting must be done in early spring before the leaves bud out. Use an open soil that will provide strong root growth. Open soil mixes allow good drainage, a reserve of oxygen, and can be kept evenly damp.

Watch for black spot fungus that readily attacks these elms. Treat with a good fungicide and give them plenty of air circulation.



## Plant Nutrient Deficiency Symptoms



### Calcium (Ca)

**Symptoms:** Seen first in the active parts of the plant which is the youngest part, or leaves and tips of stems and roots. Leaves look twisted, deformed, and sometimes with a hook like effect. New growth, seedlings, and roots die.

**Sources:** Any compound containing the word 'calcium'. Also gypsum.

**Notes:** Not often a deficiency problem and too much will inhibit other nutrients.

**Excess:** May cause deficiency in magnesium or potassium

### Iron (Fe)

**Symptoms:** Iron deficiency is common in many plants, especially those grown indoors. Plant leaves are turning yellow between veins. Leaves may potentially die from edges to inward. The new leaves show symptoms first while older leaves may be unaffected. If the deficiency continues, it will spread to the veins, leaves and then the plant dies. Can especially be a problem in alkaline conditions or in wet root zone media. Cool temperatures, high humidity and wet root zone conditions will create iron deficiencies.

**Excess:** May cause bronzing of leaves with tiny brown spots



### Nitrogen (N)

Nitrogen deficiencies often appear first in older leaves, and will manifest as a light green overall appearance. As symptoms progress, the leaves turn a yellow color and stems become weak and lower leaves drop off. Necrosis develops in older leaves. New growth becomes weak and spindly. Tops and roots grow poorly. When plants are in the mid to later growth or flowering stages, older growth and large fan leaves may show nitrogen deficiency. This is normal during the late stage of floral development because plants near the end of their lives are using up their nutrient and carbohydrate reserves. As leaves turn completely yellow, remove

them from the plant.

Nitrogen excess turns foliage very dark green and can make plants susceptible to drought, disease and insect predation. Nitrogen is crucial to photosynthesis and reproductive function. Nitrogen makes proteins and is essential to new cell growth. Nitrogen is mainly utilized for leaf and stem growth, as well as overall plant size and vigor. Nitrogen moves easily to active young shoots and leaves and moves more slowly to older leaves. Nitrogen is involved in the structuring of amino acids, enzymes (specialized proteins that perform duties inside plants), proteins and nucleic acids. All of these are essential for cell division and most other plant functions. Obviously, nitrogen is essential to plant growth.

**Sources:** Any compound containing the words: 'nitrate', 'ammonium' or 'urea'. Also manure.

**Notes:** Many forms of nitrogen are water soluble and wash away.

**Excess:** Dark green foliage which may be susceptible to drought, disease and insects. Fruit or seeds may fail to mature



### **Magnesium (Mg)**

Symptoms: Slow growth and leaves turn pale yellow, sometimes just on the outer edges or between veins. New growth may be yellow with dark spots. Smaller veins have a checkerboard effect in which the veins stay green. Tan or gray spots appear in yellow parts of the leaf.

Sources: Compounds containing the word 'magnesium', such as Epson Salts.

Excess: Generally tolerated in most plants. Could

imbalance with calcium and potassium and may reduce growth

### **Phosphorus (P)**

Symptoms: Phosphorus deficiencies show up in older growth first. You will see leaf tips curling downwards. When phosphorus is deficient, slow and spindly plants with reduced growth will result. Phosphorus deficiency leaf damage often shows itself as patches that are dull dark green to bluish green. In severe cases, older leaf and petioles turn reddish purple. Younger leaves appear yellowish green with purplish veins when nitrogen is deficient, but will have dark green veins when phosphorus is deficient. Necrotic spots occur on leaf margins in advanced stages of phosphorus deficiency. Leaf tips look like they have been burnt. Phosphorus deficiency is most common when pH is above 7 or below 5.5. Phosphorus will bind with soil very easily and this can cause excess phosphorus. Excess phosphorus can create deficiencies of zinc and iron. Plants use phosphorus for photosynthesis, respiration, storing carbohydrates, cell division, energy transport (ATP, ADP), nucleic acids, enzymes and phospholipids. Phosphorus builds strong roots and is vital for seed and flower production. Highest levels of phosphorus are needed during germination, early seedling growth and flowering.



Sources: Compounds containing the words 'phosphate' or 'bone'. Also greensand.

Notes: Very dependent on pH range.

Excess: May cause micronutrient deficiencies, especially Iron or Zinc.

### **Potassium (K)**



Symptoms: Shows first in older leaves may look yellowed, singed, scorched or even wilted around the edges. Starts small and then gets bigger over time. Interveinal chlorosis (yellowing between the leaf veins) develops. Shows signs of yellow and dead spots towards the inside. The leaves also show curling and have a burned (scorched) appearance. This causes the stems to be weak, roots show rotting, and any fruit may also shrivel. Plants seen to develop very slowly and possibly stunted. If in bloom phase, the flowers will develop very slowly.

Sources: Compounds containing the words 'potassium' or 'potash'.

Excess: May cause deficiencies in magnesium and possibly calcium.

## Sulfur (S)

Symptoms: New growth turns pale yellow, older growth stays green. Veins have lighter coloring with a possibility of dead spots. Plant may act like it is reaching for the sun light with a stunted and thinned growth appearance.

Sources: Compounds containing the word 'sulfate'. Notes: More prevalent in dry weather.

Excess: May cause premature leaf drop



## <Boron (B)>

Symptoms: Poor stem and root growth. Terminal (end) buds may die. Witches brooms sometimes form.

Sources: Compounds containing the words 'borax' or 'borate'.

## Copper (Cu)>

Symptoms: Stunted growth. Leaves can become limp, curl, or

drop. Seed stalks also become limp and bend over.

Sources: Compounds containing the words 'copper', 'cupric' or 'cuprous'.



## <Manganese (Mn)>

Symptoms: Growth slows. Younger leaves turn pale yellow, often starting between veins. May develop dark or dead spots. Leaves, shoots and fruit diminished in size. Failure to bloom.

Sources: Compounds containing the words 'manganese' or 'manganous'

## Molybdenum (Mo)

<Symptoms: Older leaves yellow, remaining foliage turns light green. Leaves can become narrow and distorted.

Sources: Compounds containing the words 'molybdate' or 'molybdic'.

Notes: Sometimes confused with nitrogen deficiency.

## Zinc (Zn)

Symptoms: Yellowing between veins of new growth. Terminal (end) leaves may form a rosette.

Sources: Compounds containing the word 'zinc'. >>>

Notes: Can become limited in higher pH.



This article combines materials from many internet articles. Sorry I lost track of the sources but from my experience, these are pretty accurate.

## What is Happening in the Bonsai World?

These events were covered in past issues. See their websites for more details.

I hope to see you at the \* events

September 12-15 ABS Love of Bonsai Learning Seminars \* [www.loveofbonsai.com](http://www.loveofbonsai.com)

October 31- November 3 Golden State Bonsai Federation Annual Convention \*



### LOVE OF BONSAI

### ABS LEARNING SEMINARS

### SARATOGA SPRINGS NY

SEPT. 12-15, 2013

Courses are closing so register now.

Go to [www.loveofbonsai.com](http://www.loveofbonsai.com) for registration forms if you need one.

**Please come visit my nursery Sunday Afternoon after the close of the seminars.**



Are you ready for something different in a bonsai learning experience? GSBF Convention XXXVI – “Bonsai Artist Studio: OUTSIDE THE BOX” will deliver on October 31 through November 3, 2013, at the Burbank Airport Marriott Hotel & Convention Center. See you there!!

<http://www.gsbfbonsai.org>



### Lots of new stock has arrived

Come in and find something to play with soon.

**Need a special pot for next spring? Bring in your tree now and order the perfect pot for spring.**



# AUGUST EVENTS

AT PFM BONSAI STUDIO. Also Available MOST weekdays...call to check before coming out

CALL OR EMAIL TO REGISTER FOR ANY OF THESE



## **Monday Bonsai Study Group 6 PM or so**

Come and play and learn with our Monday study group. There is no charge for this group. We come together and work on a project. Or we simply bring some of our trees to work on. Some join in a shared meal before beginning .we chip in for the food. Bring materials to work on and join in the fun.

**Open studios are scheduled throughout the summer.** As I see great material development during the summer, I will schedule some defined workshops for them. I would appreciate an email if you are coming out for one of the open workshops. Please bring a lunch if you are coming for the day. IF you have a problem tree to work on, please schedule an appointment to work with Pauline. .

## **August 3 FIELD TRIP TO MARTIN SCHMALENBERG'S Stillwater Studio.**

**Join us for an all day trip by car.** We will meet at Stillwater Studio at 10:30 AM. Martin will offer a program on rock planting and give us a personal tour of his bonsai garden and studio. Fee shared by the group. So far we have 9 people meeting there.

**August 4 Free Open Workshop at the studio 10 AM to 5 PM.** Come in and work on your trees. Bring a lunch and stay the day. Want to do a special project? Contact Pauline to set up a work time and instruction.

August 10 Studio Open Intermediate Class 7 at 2PM

August 11 STUDIO CLOSED

August 17 Studio Open Intermediate Class 8 at 2PM

**August 18 Make a tropical bonsai workshop.** Choose from many easy to grow indoor species and make a bonsai after a lesson on creation and winter care. \$40 plus materials. ( Materials start at \$15. Most under \$40) Pre-register please.

August 24 STUDIO CLOSED

August 25 STUDIO CLOSED MHBS rock collecting field trip at the Meadowee River

## **pfm bonsai studio supports**

Mohawk Hudson Bonsai Society <http://mohawkhudsonbonsai.org>

MidAtlantic Bonsai Societies - [www.midatlanticbonsai.freesevers.com](http://www.midatlanticbonsai.freesevers.com)

American Bonsai Society - [www.absbonsai.org](http://www.absbonsai.org)

Bonsai Clubs International - [www.bonsai-bci.com](http://www.bonsai-bci.com)

National Bonsai Foundation - [www.bonsai-nbf.org](http://www.bonsai-nbf.org)

**please visit [www.pfmbonsai.com](http://www.pfmbonsai.com) for current happenings at the studio**

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