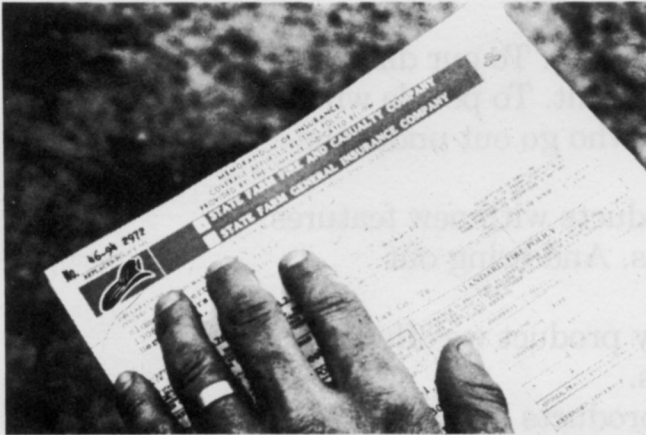


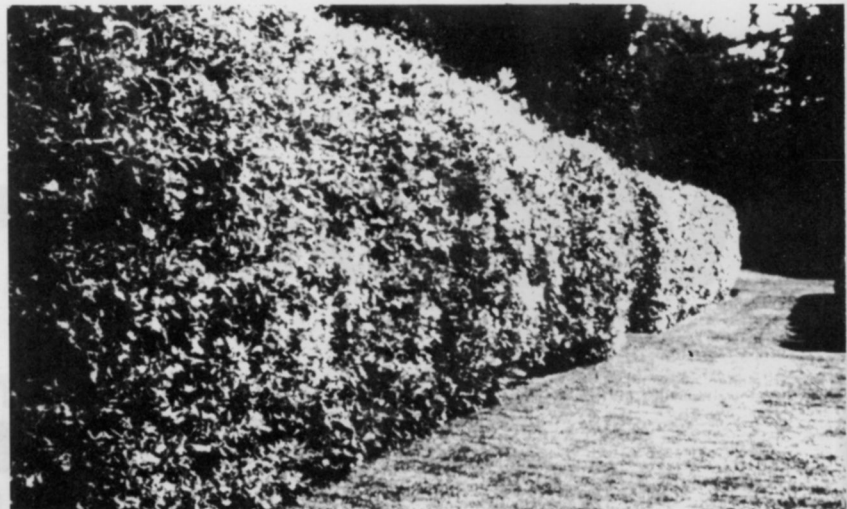
HOW TO APPRAISE TREES AND PLANTS FOR TAX AND INSURANCE PURPOSES



This article has been derived from a soon-to-be-released audio visual program by the Council of Tree and Landscape Appraisers. The Council is a cooperative venture by five major professional organizations to promote the importance of the landscape contractor, arborist, and nurseryman in establishing plant values for tax and insurance causes. The five organizations are The American Society of Consulting Arborists, the International Society of Arboriculture, the Associated Landscape Contractors of America, the National Arborist Association, and the American Association of Nurserymen. Special thanks goes to F. R. Micha, a member of the Council for his help in preparing this article.

The book mentioned in the article, "The Guide for Establishing Tree and Plant Values" will be released in February by the International Society of Arboriculture. The audio/visual program, designed actually for homeowners and insurance agents, will be available in late January. All inquiries should go to the Council (address at end of article).

Row of hedges provides privacy. A mature hedge like the one pictured would take years to replace in the case of damage.



Shade trees and other landscape plants have traditionally been considered important for their aesthetic qualities. They also play important roles in air purification, temperature control, noise abatement, control of wind and erosion, and privacy.

Considering these various benefits of plants in a landscape, the need to assign a financial value becomes obvious.

How this value is determined and what it means to a property owner in tax and insurance matters are just two reasons why plant appraisal is best performed by skilled professionals.

The U.S. Forest Service reports that trees can add as much as 20 percent to the value of property. Real estate studies show that smart landscaping can add up to 30 percent to the sale price. When a tree or landscape plant is damaged or destroyed, the value of property is reduced.

If the damaged plant is small enough to be replaced readily, the professional has little difficulty establishing a realistic value because he is familiar with replacement costs.

Trees up to 12 inches in diameter and most shrubs and evergreens are in this "transplantable" category.

The Internal Revenue Service will usually accept replacement costs as a tax loss. Treasury regulations provide that normally the casualty loss should be measured by "competent appraisal." They also provide that the "cost of repair" is acceptable as evidence of the loss with the conditions that the repairs were necessary, reasonable in amount, don't go beyond the damage incurred, and don't raise the property value above its pre-casualty level.

Trees larger than 12 inches in diameter present a significantly more complex set of determinations. These criteria are published in a book, "The Guide to Establishing Tree and Plant Values," by the International Society of Arboriculture.

Basically, the value of trees ranging from 13 to 40 inches in trunk diameter is determined by multiplying the area (in square inches) of a cross section of the trunk at a height of four-and-a-half feet by \$15.

Once this figure is obtained, three other factors must be considered. They are the kind of plant, condition and location. Each of these are judged on a percentage basis (100 percent being highest) and multiplied by the cross section value.

It is the job of assigning a percentage value for type, condition, and location that most requires the knowledge of a professional plant appraiser.

Recently during a workshop on establishing tree values sponsored by the American Society of Consulting Arborists at the National Arboretum in Washington, D.C., 100 tree and landscape plant specialists judged a selected variety of plants for value and damage incurred.

One of the trees judged had been damaged, probably beyond repair by a fire resulting from a workman's accident. A value for the oak was needed to file a damage claim.

The oak measured 32 inches in diameter at four-and-a-half feet above the ground. The area of the cross section is approximately 800 sq. in. ($\pi \times \text{radius}^2$ or 3.14×16^2). Multiplying 800 by \$15, a value of \$12,000 is obtained.

The Guide contains tables which list area and value for many sizes of plants.

Next to consider is the type of tree. Oaks are hardy trees, fairly insect and disease resistant, with important environmental contributions. They are therefore rated high on a percentage scale. The 100 professionals assigned a 90 percent value. The value is accordingly reduced, \$12,000 x 90 percent, or \$10,800.

The location of the tree was good as an integral part of a landscape. The appraisers assigned a 90 percent value for location. Therefore, the value was again reduced, \$10,800 x 90 percent, or \$9,720.



Fred Micha (right), member of The Council of Tree and Landscape Appraisers, chats with fellow arborists L. Martin (left) and A. Sandstrom (center).

Finally, the condition of the tree was judged. The condition of the tree before the fire was difficult to judge since no photographs of the tree before damage existed. The appraisers had to consider the age of the tree, its life expectancy under normal conditions, buds emerging in spite of the damage, and branches not touched by the fire. All these factors led the appraisers to rate the pre-accident condition at 60 percent. The final reduction (\$9,720 x 60 percent) results in a precasualty value of \$5,832. This is the amount that should be listed in the insurance claim.

A second tree appraised by the group was a Korean pine, an evergreen. Rather than measure the diameter, the professional bases the beginning of his formula on the height of the tree.

The Guide includes a table of basic values for evergreen trees and shrubs at various heights.



Estate pictured could suffer tremendous losses in the case of a severe ice storm. The owner would be wise to have plants appraised periodically to guard against low appraisal in case of damage.

Condition guide for shade trees

Once a nontransplantable plant is damaged, its precasualty condition is the hardest factor to judge. Only on rare occasions is there a photo or appraisal on hand to document precasualty value.

Like jewelry or anything else of value, an owner should keep updated records on value. Homeowners and other property owners should periodically have valuable plants appraised by a professional plant appraiser. An appraiser can estimate precasualty condition after a loss based upon evidence, but the most accurate figure comes from periodic appraisal before damage takes place.

Bruce L. Webster, urban forester for the Nebraska Forest Service in Lincoln, has reported a point system for the condition of shade trees. This system was published in the Nov. 1978 issue of the *Journal of Arboriculture*.

It is a formula utilizing five factors; trunk, growth rate, structure, insects and diseases, crown development, and life expectancy. Each factor is assigned a point value and these are added together for an overall condition rating.

Guide for judging the condition of a shade tree.

A. Trunk condition

Sound & Solid	Sections of bark missing	extensive decay & hollow
5	3	1

B. Growth rate (consider species)

more than 6" twig elongation	2-6" twig elongation	less than 2" twig elongation
3	2	1

C. Structure

Sound	one major/several minor limbs dead, broken, missing	2 or more major limbs broken, dead, missing
5	3	1

D. Insect & disease

No pests present	1 pest present	2 or more pests present
3	2	1

E. Crown development

Full & Balanced	full but unbalanced	unbalanced & lacking a full crown
5	3	1

F. Life expectancy

over 30 years	15-20 years	less than 5 years
5	3	1

Condition Class:	Percent	Rating
Excellent:	80-100%	26-23
Good:	60-80%	22-19
Fair:	40-60%	18-14
Poor:	20-40%	13-10
Very Poor:	0-20%	9-6

The percent figure (center column above) can be used for the condition percentage in the standard appraisal equation for nontransplantable trees.

A Korean pine is practically irreplaceable since there are only a few in this country. Arriving at a real dollar value for a rare tree, especially if no precedent exists for assigning a value, is very difficult.

The tree was in a prominent place and helped screen the view of a parking lot behind it. However, it was planted too near an oak tree which was crowding the pine. A location value of 70 percent was selected.

There is another kind of challenge in appraising plants, multi-stemmed trees such as Crepe Myrtle. There are three ways to calculate values for multi-stemmed plants.

One is to determine replacement costs, if it is transplantable. Another is to base the appraisal on the value of a single-stem tree that would give the same tree canopy. The third is more complex.

In the third method, the value is based upon the diameter measurement of the largest stem, plus 50 to 70 percent of the combined diameters of the remaining stems. After arriving at this figure, standard reductions for type, location and condition are made.

Crepe Myrtle is subject to winter damage. Because of this, its type rating is lower than some plants. In determining a precasualty value for a Crepe Myrtle, the severity of previous winters would have to be considered.

Such plant characteristics are just part of the knowledge an appraiser must have to make an accurate value determination. Only trained and experienced professionals know all the factors that must be considered in plant appraisal.

The five member associations of the Council of Tree and Landscape Appraisal are the correct source for individuals with the proper training in plant characteristics and appraisal.

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