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ALBIZIA JULIBRISSIN AND ITS CULTIVAR 'ERNEST WILSON'

Albizia julibrissin, commonly called silk tree or mimosa, is a small tree that produces an abundance of pink, powder puff-like flowers from June or July until September. It grows naturally from Japan to the Caspian Sea. It is commonly cultivated, and frequently has escaped from cultivation, in warm temperate areas of the world. In the southeastern United States it is frequently seen from Washington, D.C. southward. The fact that certain clones are hardy at the Arnold Arboretum is less well known. Because information about *Albizia julibrissin* is scattered in the horticultural literature, it has seemed useful to summarize it here.

The silk tree is reported to have been introduced into cultivation in Italy, brought from Constantinople by the Cavaliere Filippo Albizzi in 1749. From this material Antonio Durazzini described *Albizia julibrissin* in the *Magazzino Toscano* in 1772. Somewhat earlier, in 1745, it had been introduced into England by one Richard Bateman, Esq. The earliest records of the cultivation of the silk tree in America that I have been able to find are in a plant list dated 1814, entitled *Catalogue of Trees, Shrubs and Herbaceous Plants . . . Cultivated and for Sale at Bartram's Botanical Garden . . .*¹ and in a book entitled *The Practical American Gardener* published anonymously in Baltimore in 1819.

In the first volume of Torrey and Gray's *Flora of North America*, issued between 1838 and 1843, *Albizia julibrissin* is listed (as *Acacia julibrissin*) with the comment "In gardens and yards, Louisiana, Prof. Carpenter ! cultivated and somewhat naturalized." Today, it is commonly seen cultivated as a yard or lawn tree throughout the Southeast. Not uncommonly it is found persisting around old house sites, in hedgerows, along roadsides, and around dumps.

About 1864, seeds were received at the Museum National d'Histoire Naturelle

¹ "Bartram's Botanical Garden" is the Bartram homestead where John and William Bartram cultivated plants found on their journeys and sent to them by foreign and domestic correspondents. It is now part of the City of Philadelphia Park System.

in Paris from an unspecified North American source. Seedlings were grown and in 1871, E. A. Carriere described and illustrated one of the seedlings as *Albizia rosea* (*Revue Horticole*, vol. 42, p. 490). This publication was the basis for the name *Albizia julibrissin* var. *rosea* (Carriere) Mouillefort (*Traite des Arbres et Arbrisseaux*, Vol. 1, p. 686, 1894), and *Albizia julibrissin* forma *rosea* (Carriere) Rehder (*Bibliography of Cultivated Trees and Shrubs*, p. 351, 1949).

In 1875 Louis Van Houtte, the editor of *Flore des Serres* . . . published an illustration (nearly identical with Carriere's except that it is a mirror image) and said that the plant should be called *Acacia Nemu*. Under this name, or as *Albizia Nemu*, the tree was spread in cultivation around France. It was generally considered to be a hardy form of the *Albizia julibrissin* that had been growing in French gardens as far north as Lyon at least as early as 1849.

Because *Albizia julibrissin* is a valuable small tree for summer flowering, there have been a number of attempts to introduce the plant into the Arnold Arboretum. In 1889 a plant called *Acacia Nemu* was obtained from the S. B. Parsons Nursery in Flushing, N.Y. Since Parsons is known to have introduced plants from abroad, this may well have been a plant of the true *Albizia rosea*. In any event, it did not survive at the Arnold Arboretum. In 1921 seed was obtained from an unspecified area in China, but the seedlings did not survive.

In 1918 E. H. Wilson collected seeds in Seoul, Korea from a tree of *Albizia julibrissin* cultivated in a hotel courtyard. Wilson did not see the species in the wild in central Korea (around Seoul), so this particular tree must be considered to be a cultivated selection from the wild forms, whose northern limit of natural occurrence seems to be in the southern parts of the Korean peninsula, or around Port Arthur in Manchuria. In writing of this tree in 1929 (*Arnold Arboretum, Bulletin of Popular Information*, 3rd Series, Vol. 3, p. 58), Wilson said:

"The origin of the plant in the Arboretum affords a good illustration of the importance of obtaining for northern gardens types which grow in the coolest regions they can withstand. The particular tree was raised from seeds collected in the garden of the Chosen Hotel at Seoul, Korea, by E. H. Wilson in 1918. It grows wild in the southern parts of the Korean peninsula but appears quite at home in the more severe climate of the central region. A few seeds only were collected and seedling plants were set out in the Arboretum when about four years old; several were killed the first winter but one came through with but slight injury and since that time has not suffered in the least. From its behavior during the last seven or eight years there seems reason to believe that this Korean type will prove a useful and valuable addition to gardens. It has a long flowering season, continuing in blossom throughout August. *Albizia* is a member of a tropical tribe of the great family Leguminosae and it is astonishing that this tree should be able to withstand New England winters. Apparently it is happy in fully exposed situations, where good drainage and a sandy loam prevail."

Wilson, and apparently Rehder, identified this plant with Carriere's *Albizia*



PLATE IX

The single plant of *Albizia julibrissin* remaining in the Arnold Arboretum from seeds introduced from the Lu Shan Arboretum, Hupeh, China in 1935 shows the upright growth habit that is predominant in this species.

rosea, presumably because of its hardiness. Apparently they did not give much weight to the matter of flower color. In the Korean plant, the stamens are pink in the upper half but whitish below, quite different from the concolorous pink of the plates of Carriere and Van Houtte. *Albizia rosea* appears to be a name properly considered as belonging to a clonal or pure line selection from the population of *Albizia julibrissin* growing in the southeastern United States about 1864. In other words it is best treated as a cultivar.

It appears that only a single plant originally existed of Carriere's *Albizia rosea*, so all plants of the hardy *Albizia rosea* (or *A. Nemu*) are pure line descendants of the single plant. It is certain that only a single plant survived of Wilson's collection from Korea. Finally, only a single plant survives in the Arnold Arboretum from an introduction of seed from the Lu Shan Arboretum, Hupeh, China, in 1935. The latter two hardy clones are planted only about 150 feet apart in the Arnold Arboretum. Seeds from these plants cannot be guaranteed to be the result of self pollination. Therefore, only vegetatively propagated material of 'Ernest Wilson' can be guaranteed true to name.

Carriere's *Albizia rosea* and the Arnold Arboretum seedling from Lu Shan seed are similar in habit to each other and to the common form of silk tree found throughout the southeastern United States. That is, they develop one or more trunks $1\frac{1}{2}$ to 4 feet tall, at which height the trunk breaks up into a series of ascending, then widely spreading, branches (Plate IX). Wilson's Korean plant, however, differs in producing several widely spreading branches from about ground level (Plate X). Our limited experience suggests that this growth character is inherited by the seedling progeny.

It is proposed here that the plant grown from Wilson's seed, and its vegetative progeny, can be treated as a distinct cultivar, to be named 'Ernest Wilson'. This cultivar is distinguished from all others in the species by both habit and hardiness. The type specimen for this name is the plant in the Arnold Arboretum, accession number 13381, raised from seed of E. H. Wilson's collection number 11245, collected in Seoul, Korea, in 1918.

Albizia julibrissin grew and flourished without disease in the southeastern United States for more than one hundred years. Indeed, it was widely recommended for yard planting, since it grows quickly and flowers while quite small. But in 1935 a wilt disease caused by *Fusarium oxysporum* f. *perniciosum* (Hepting) Toole, was reported around Tryon, North Carolina. This disease spread rapidly through the Southeast. It was reported to have reached New York by the 1950's. It also had been reported from Russia in 1920 and Argentina in 1948. For susceptible trees, the disease is invariably fatal. But the U.S. Department of Agriculture has selected and distributed two disease resistant clones for southern conditions: 'Tryon' with dark pink flowers and 'Charlotte' with light pink flowers. In a single trial, these have not proved hardy at the Arnold Arboretum. So far as we know, the hardy strains of silk tree at the Arnold Arboretum have not been



PLATE X

Albizia julibrissin 'Ernest Wilson' differs from the species in growth habit in that it produces widely spreading branches at about ground level and remains wider than tall to maturity. The original plant, shown in winter (top) and in summer (bottom) will become 50 years old in 1969.

tested for disease resistance—nor do we know if the wilt organism has sufficient cold tolerance to survive a New England winter.

The great value of *Albizia julibrissin* and the cultivar 'Ernest Wilson' reside in their long season of abundant bloom. Beginning in late June or early July, and continuing until late September in Boston, the trees are almost continuously covered with the showy pink and white, powder puff-like inflorescences.

GORDON P. DEWOLF, JR.



PLATE XI

Flowers of *Albizia julibrissin* expand from early July through much of September. Fully open flowers and unopened buds are found together on the plant during most of this long blooming season.