

supervisor's copy suffices for our records of their concurrence for the tree's removal. The customer must also sign the certificate portion when it is redeemed. The redeemed and signed certificates are accumulated by the nursery and provide the necessary documentation for invoicing.

We have realized several benefits by handling our program this way. Some of these are:

1. The customer has the flexibility of obtaining a low-growing tree, grass seed, water hoses, shrubs, flower bulbs, fertilizer, etc.

2. If plants are chosen, the customer may obtain them at the correct time of the year for planting, whereas we may have removed their tree at the worst possible planting season.

3. Our crews can utilize their time on needed maintenance work rather than for the procurement and planting of trees.

4. We will not be held responsible for the survivability of plants or trees which may succumb due to improper care, drought, etc.

The program itself benefits Duke Power in a number of ways. Among them are:

1. We are able to eliminate a frequently recurring maintenance problem for a nominal expense.

2. The elimination of such trees not only makes our distribution system more reliable, but also safer, since most of these trees are in highly urban areas.

3. Our company will be viewed as a more caring and sensitive company by a procedure such as this which offers some type of reimbursement for the removal of a customer's problem tree.

Duke Power's Customer Tree Replacement Program has proven itself both economical and customer-oriented over the last several years. The ultimate goal of a utility arborist, and in all probability an unachievable goal, is to eventually have only compatible trees growing under and near their electrical distribution lines. The challenge is there, and although a tree replacement program is only a minute step toward our unachievable goal, it is a step in the right direction!

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## Abstracts

GILMAN, E.F. 1988. **Tree root spread in relation to branch dripline and harvestable root ball.** Am. Nurseryman 168(11):85.

There is much speculation on depth and spread of tree roots. In this study, I quantified the relationship between horizontal root distribution and branch spread distribution. Six trees of 3 species were excavated. I calculated the mean root spread by averaging the distance between the trunk and root tips in the north, south, west and east directions. All three species had more roots outside the branch dripline than within. Because a significant portion of the roots are indeed beyond the dripline, it is no wonder that even trees that are well-protected during landscape construction often die.

TISSERAT, N., J. PAIR and A. NUS. 1988. **Rocky Mountain junipers susceptible to canker disease.** Am. Nurseryman 168(11):87-88.

Junipers are an important part of the Kansas landscape. In 1986, however, a new canker disease was found on *Juniperus scopulorum* in several locations around the state. *Botryosphaeria* canker is responsible for the extensive dieback.