Abstract. Utilities must prune trees in order to safely deliver electrical power and do it in a reliable manner. The ultimate answer to the ever increasingly difficult task of clearing lines from conflicting tree limbs in the urban setting is to have compatible tree species planted in and near the right-of-way rather than the larger maturing species. Duke Power, like many utilities, has decided to take a pro-active approach to the problem and initiate a customer tree replacement program to aid in procuring the customer's agreement to allow the removal of certain incompatible species.

Utility companies are finding themselves having to continually be more responsive to customer concerns. One increasingly popular concern that customers are having has to do with their trees and the utility's need to prune them to achieve adequate clearance from the conductors. The type of trees that customers are most sensitive about are those residential yard trees which are highly visible. Quite often, these are trees that the customer planted years earlier and nurtured as the years went by. Unfortunately, many of them are tall at maturity and eventually cause utility line conflicts. More often than not, as these trees become as tall as the utility lines, a conflict arises between the customer and the utility when a crew is dispatched to prune the tree. The customer usually resents this necessary work, and to consider the tree's removal would be even more upsetting. The question now arises in the mind of the utility arborist: "How can I eliminate this continual maintenance problem, and even more importantly, how can I accomplish this in a customer-friendly manner?" The answer may be a customer tree replacement program.

For a number of years now, Duke Power has cooperated in group tree replacement programs across our service area. These programs usually involve the participation of a city or town and are directed at the removal and replacement of larger curb-side trees on a city right-of-way. A "municipal" tree replacement program has certain advantages, since it can normally be implemented through communications with one representative from the particular city or town. Secondly, the parameters are much more easily defined and adhered to with a municipal program.

After having implemented several municipal programs, we began to see where a similar program was needed for the individual customer. In the past, we have been successful in obtaining customer concurrence for the removal of many naturally occurring residential trees, but found that most customers were very reluctant to give up those front yard trees which were planted years ago and which are now conflicting with utility lines. Our "Customer Tree Replacement Program" has assisted us in this situation.

This "Customer Tree Replacement Program" has a slight twist, however. Instead of removing the customer's tree and replacing it with a low-growing variety, we merely remove the tree and give the customer a certificate good for nursery merchandise. The certificate can be redeemed at a local nursery at any time during the year, and is valid for any of the nursery items with the exception of tree species with an expected mature height greater than twenty feet. In a given location, we may have one or more nurseries set up with a purchase order to accommodate the customer's certificate. The certificates themselves are actually a portion of a two-part form. Both portions of the form have a unique identifying number on them. Our local supervisor keeps the top portion for his records, and the lower portion is torn off for the customer. The customer's signature on the certificate is witnessed by the field supervisor.

Resume. Les entreprises de services publics doivent elaguer les arbres dans le but de livrer securitairement l'électricité et le faire de maniere serieuse. La response ultime a la tache toujours plus difficile de libérer des réseaux des branches d'arbres conflictuelles, est d'avoir des espèces compatibles plantées dans et près des servitudes, plutôt que des espèces à plus grand déploiement. Duke Power, comme plusieurs entreprises de services publics, a décidé de prendre une approche pro-action face au problème et a initié un programme de remplacement d'arbres sur les propriétés privées en se procurant l'accord du propriétaire pour permettre l'abattage de certaines essences incompatibles.

Utility companies are finding themselves having to continually be more responsive to customer concerns. One increasingly popular concern that customers are having has to do with their trees and the utility's need to prune them to achieve adequate clearance from the conductors. The type of trees that customers are most sensitive about are those residential yard trees which are highly visible. Quite often, these are trees that the customer planted years earlier and nurtured as the years went by. Unfortunately, many of them are tall at maturity and eventually cause utility line conflicts. More often than not, as these trees become as tall as the utility lines, a conflict arises between the customer and the utility when a crew is dispatched to prune the tree. The customer usually resents this necessary work, and to consider the tree's removal would be even more upsetting. The question now arises in the mind of the utility arborist: "How can I eliminate this continual maintenance problem, and even more importantly, how can I accomplish this in a customer-friendly manner?" The answer may be a customer tree replacement program.

For a number of years now, Duke Power has cooperated in group tree replacement programs across our service area. These programs usually involve the participation of a city or town and are directed at the removal and replacement of larger curb-side trees on a city right-of-way. A "municipal" tree replacement program has certain advantages, since it can normally be implemented through communications with one representative from the particular city or town. Secondly, the parameters are much more easily defined and adhered to with a municipal program.

After having implemented several municipal programs, we began to see where a similar program was needed for the individual customer. In the past, we have been successful in obtaining customer concurrence for the removal of many naturally occurring residential trees, but found that most customers were very reluctant to give up those front yard trees which were planted years ago and which are now conflicting with utility lines. Our "Customer Tree Replacement Program" has assisted us in this situation.

This "Customer Tree Replacement Program" has a slight twist, however. Instead of removing the customer's tree and replacing it with a low-growing variety, we merely remove the tree and give the customer a certificate good for nursery merchandise. The certificate can be redeemed at a local nursery at any time during the year, and is valid for any of the nursery items with the exception of tree species with an expected mature height greater than twenty feet. In a given location, we may have one or more nurseries set up with a purchase order to accommodate the customer's certificate. The certificates themselves are actually a portion of a two-part form. Both portions of the form have a unique identifying number on them. Our local supervisor keeps the top portion for his records, and the lower portion is torn off for the customer. The customer's signature on the certificate is witnessed by the field supervisor.

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!

Supervisor
Environmental Maintenance
Duke Power Company
P.O. Box 33189
Charlotte, North Carolina 28242

Abstracts


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.


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.