16 The Florida Department of Correction's Involvement in Exotic Pest Plant Control

Clayton Campbell and Fred D. Carter
Florida Department of Corrections, Bureau of Asset Management, 2601 Blair Stone Road, Tallahassee, Florida 32399-2500; dc@nettally.com

Abstract

The Department of Correction's involvement in exotic nuisance plant control grew out of a desire to comply with certain environmental permit conditions associated with the construction of prisons. Permits for the construction of the South Florida Reception Center and the Everglades Correctional Institution in Miami-Dade County required the eradication of nuisance plant species from these sites. The Department's involvement in exotic pest control has grown from its beginnings in 1990 to include at least five major institutions providing one or more ten-man crews to conduct control activities on public lands and rights-of-ways.

Melaleuca (*Melaleuca quinquenervia* (Cav.) S.T. Blake) was first introduced into South Florida in the early 1900s. It now occupies over half a million of the Everglades' 7.6 million ac and is spreading at a rate of 50 ac a day, according to estimates by the South Florida Water Management District (SFWMD). The U.S. Army Corps of Engineers planted melaleuca at Lake Okeechobee in the 1930s and 1940s to protect the Herbert Hoover Dike from erosion. Latest estimations are that around 30 000 ac of the lake are infested with melaleuca. Many areas of South Florida are monocultures of dense melaleuca forest. Very little native vegetation can coexist with melaleuca. Many native habitat values are lost if melaleuca is allowed to go unchecked. This plant is so invasive that some consider it the greatest single threat to the continued preservation of the Everglades and Big Cypress ecosystems. Marjorie Stoneman Douglas has called melaleuca an "explosion in slow motion."

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South Florida Reception Center and the Everglades Correctional Institution in Miami-Dade County required the eradication of nuisance plant species from these sites. Chief among these exotic plants are melaleuca, Brazilian pepper (*Schinus terebinthifolius* Raddi) and Australian pine (*Casuarina equisetifolia* L.). The DOC has assisted the National Park Service (NPS) in the eradication of melaleuca from nearly 21 500 ac in the vicinity of Monroe Station. The latest estimation by the NPS is that melaleuca now occupies over 119 000 ac in Big Cypress National Preserve.

The first effort by the DOC to eradicate melaleuca and other nuisance plants began at the South Florida Reception Center in 1990 with the creation of mitigation sites cleared of vegetation, scraped, and replanted with native plant species. A melaleuca project was started there in January 1996 to cut down the remaining forested areas onsite using inmate labor. In June 1996, the DOC entered into an agreement with the SFWMD to conduct eradication activities along the Krome Avenue right-of-way using inmate labor from the Everglades Correctional Institution. Shortly thereafter, a crew consisting of ten inmates, supervised by correctional officers and receiving minimum training, began clearing undesirable vegetation from this right-of-way.

The Krome Avenue project was the first attempt at eradication using inmate labor in a cooperative agreement between the DOC and another state agency in southeast Florida. After felling the trees, the stumps were treated with an approved herbicide (Garlon 4), premixed and supplied by the SFWMD. A revenue generating agreement was reached with a private concern to dispose of the exotic plant residue and pay the department for the material. This company, Future American Corporation, chips the cut trees, cures the product, and sells it to a cogeneration power plant for boiler fuel. This project has recently been expanded to include an additional ten man inmate crew. Along with some private logging crews, they have, to date, successfully cleared and treated approximately nine miles of right-of-way along Krome Avenue. The grounds of Everglades Correctional Institution have also been recently cleared of melaleuca by this same crew of inmates. When you consider that most of this was accomplished using unskilled minimum and medium custody inmates supported with little heavy equipment, it is impressive.

Inmates from Fort Myers Community Correctional Center began clearing melaleuca from the site of the new Florida Gulf Coast University campus in November 1995. To date, they have cleared between 80 and 90 ac of dense melaleuca forest. In July 1997, the Okeechobee Correctional Institution entered into an agreement with the SFWMD to provide inmates to perform plant eradication activities on public lands under their stewardship. Recently, inmates from Hendry Correctional Institution were used by the Florida Department of Transportation to assist in Brazilian pepper eradication along their right-of-way. In all cases, DOC personnel have eagerly assisted in this worthwhile cause to improve the environment, and public health and welfare.

The DOC has taken a proactive role in preparing personnel and inmates to meet the challenge of performing this labor intensive task in a dangerous environment under arduous conditions. In June 1995, a manual was prepared by DOC staff to guide and assist correctional officers and inmates in performing these duties in a safe and effective manner. This manual was the culmination of an exhaustive effort to determine and describe state-of-the-art practices for the eradication of exotic pest plant species. Through the Prison Industry Enhancement program, the DOC has sought to find commercial uses for the by-products of the eradication activities in an effort to defray costs to the taxpayers. Currently processed material is being supplied to industry as boiler fuel. Other beneficial uses for this material are being explored by DOC staff, the University of Florida, and DOC's private partner.

Finally, the problem of habitat restoration of areas denuded of undesirable vegetation is being considered by DOC staff. The best minds available are being consulted as to the proper course of action. Nurseries are being contacted to determine the availability of native plant material for habitat reconstruction, the second and key phase to a successful eradication operation. The possibility of constructing a native plant nursery using inmate labor to propagate and supply material in support of this effort is being explored. The scope of this habitat restoration effort may be unprecedented in state history. The efforts of DOC staff and inmates can be an essential and integral component of a successful campaign to permanently rid the state of the adverse impacts of nuisance plant species and return now infested areas to a beneficial native habitat. The rewards of this involvement will be enjoyed for many generations to come.