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Report T-682
A Bibliography of Schinus, Melaleuca, and Casuarina Exotic Genera in South Florida

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A Bibliography of Schinus, Melaleuca, and Casuarina Exotic Genera in South Florida

Report T-682

Jill Johnson and Ingrid Olmsted

National Park Service
South Florida Research Center
Everglades National Park
Homestead, Florida 33030

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INTRODUCTION

The legislated mission of the National Park Service (NPS) is to preserve, protect, and maintain the natural ecosystems in its care. In south Florida, many of these "natural areas" have been invaded by or, are threatened by, exotic plant species--particularly the successful "weed" trees, Brazilian Pepper (Schinus terebinthifolius), Australian Pine (Casuarina spp.), and Cajeput or Punk Tree (Melaleuca quinquenervia).

Though originally introduced as useful plants, it is now apparent that they can cause many problems. These three trees not only quickly colonize sites disturbed by human activity (abandoned farmland and homesites, road edges, etc.), but it also appears that they can take advantage of disturbances that are the results of natural phenomena (like hurricanes and fires) or management practices (manipulation of water levels and prescribed burning) to out-compete and exclude native species. The NPS has devoted considerable time and effort toward the control of these plants with varying degrees of success. Eradication of Casuarina from beaches has been temporarily successful, but removal of Schinus from abandoned farmland has proved difficult. At present, several studies have been initiated to further understand the dynamics of Schinus in hopes that control methods can be found.

Other local and federal management agencies, too, are faced with the problem of controlling exotic plants. Some, like the Florida Division of Parks, want to maintain whole natural ecosystems. Others, like the Water Management District and the U.S. Forest Service, are interested in managing for a particular aspect of their system such as water conservation or wildlife. Many of these agencies have been sponsoring research directed at their particular exotic plant problems.

Work being done in countries where these species are native, or where they have been more recently introduced and are grown specifically for use as firewood, is also included.

The information gained from all these diverse efforts may be helpful to those interested in controlling these and other exotics. This bibliography is an up-to-date list of the publications that have resulted from the work on three woody exotics in south Florida, the United States, and abroad.

METHODS

This is a selected, annotated bibliography on three species of exotics. The literature survey utilized a computer search of five DIALOG data bases and a hand search of local libraries, references contained in pertinent articles, and contacts with private, state, and federal agencies.

Articles were selected for their usefulness as citations on control methods, and though this bibliography includes a wide range of topics--taxonomy, anatomy, physiology, pathology, and ecology--it is not meant to be exhaustive (i.e. many articles describing the use of Casuarina as a windbreak were rejected, but records

of insect pests on those same windbreaks were selected). Annotations are included with citations when it was possible to read a paper or its abstract. The annotations are meant to be helpful and should not be considered as a complete representation of contained information. Because of the variability in length and content of articles, summaries may indicate the contents and results or just indicate subject matter.

Computer Search

The computer search was conducted through the Florida International University Reference Library. Five data bases from the DIALOG Information Retrieval Service were used. They are:

1 & 2. File 110 and File 10: AGRICOLA (Agricultural Online Access-USDA Technical Information Systems). File 110, for records entered from 1970 to 1978, and File 10, for records entered from 1979 to date of search, (October 1981). The cataloguing and indexing data base of the National Agricultural Library, provides comprehensive coverage of worldwide journals and monographic literature on agriculture and related subjects. The abstracts are available in some categories, they are not for those file-searched.

3. File 50: CAB (Commonwealth Agricultural Bureaux Abstracts-Commonwealth Agricultural Bureaux, London) for records entered from 1973 to date of search (October 1981). This is a comprehensive file of agricultural and biological information containing all records in the 26 main journals published by the Commonwealth Agricultural Bureaux with additional records from 8,500 other journals in 37 languages, books, reports, and other publications. Abstracts are available for all significant papers.

4. File 60: CRIS/USDA (Current Research Information System-USDA Cooperative State Research Service) for records from July 1974 to date of search (October 1981). This bibliography contains current research in agriculture and related fields sponsored by USDA research agencies and cooperating state institutions.

5. File 6: NTIS (National Technical Information Service-U.S. Department of Commerce) for records entered from 1964 to date of search (October 1981). NTIS compiles government-sponsored research, development, engineering and analysis reports that are unclassified, publicly available and unlimited in distribution.

Key words used in the computer search were Casuarina equisetifolia, Casuarina, Australian Pine, Beefwood, She Oak, Melaleuca quinquenervia, Melaleuca, Punk tree, Cajeput, Tea-tree, Schinus terebinthifolius, Brazilian Pepper, Florida Holly.

Because of time and money constraints, four other files: Dissertation Index, University Microfilms International; Current Research, Smithsonian Science Information Exchange; Life Sciences Collection, Cambridge Scientific Abstracts; and SCISEARCH, Institute for Scientific Information were not searched.

Agencies Contacted

1. National Park Service: Everglades National Park, Biscayne National Park, and Big Cypress National Preserve

2. U.S. Forest Service, Southeast Forest Experiment Station, Lehigh Acres, Florida.

3. U.S. Army Corps of Engineers

4. Florida Division of Forestry

5. Florida Division of Recreation and Parks

6. South Florida Water Management District

7. Florida Game and Fresh Water Fish Commission

8. University of Florida Extension Service

9. Corkscrew Swamp Sanctuary, Naples, Florida

10. Wilderness Country Club, Naples, Florida

ACKNOWLEDGEMENTS

Thanks are owed to the people who made available their personal bibliographies and lists to this collection; notably, Steve Woodall, Dorie Karl, and Jack Ewel. Marge Beary, Reference Librarian, Florida International University, who conducted the computer search, deserves a special acknowledgement, as do Betty Curl and Dee Childs who had the patience and skill necessary to type a manuscript of this sort. Cat Troutman persevered in proofreading this bibliography thoroughly.

Abdel Wahab, A. M. 1980. Nitrogen-fixing nonlegumes in Egypt. I. Nodulation and N_2 (C_2H_2) fixation by Casuarina equisetifolia. Zeitschrift fur Allgemeine Mikrobiologie 20(1). 10 p.

Nodulation and rates of duration of acetylene reduction were examined. Active fixation occurs throughout the year except during late summer months. Fixation was highest at night.

Ahmad, M., and A. Jabbar. 1971. Typhlocyba karachiensis, new species (Typhlocybinde: Homoptera) a pest of Schinus terebinthifolius in Karachi, West Pakistan. Agriculture Pakistan 22(1). 6 p.

This new leafhopper is described from adults and nymphal instars found on Schinus terebinthifolius to which it was found to be specific.

Aksornkoae, S. 1976. Structure of mangrove forest of Amphoe Khlung Changwat Chantaburi, Thailand. For. Res. Bulletin. Faculty of Forestry, Kasetsart Univ. Thailand No. 38. 42 p.

The area is described (climate, soils, tides, species) and a literature review is given. Density, frequency, dominance and diversity are measured. Melaleuca leucadendron is the dominant species inland.

Alexander, T. R., and A. G. Crook. 1975. Recent and long-term vegetational changes and patterns in southern Florida. Final report Parts I and II, Report to National Park Service, Everglades National Park, Homestead, Fla. Part I, 224 p. Part II, 827 p. (South Florida Environmental Project, Univ. of Miami, Coral Gables, Fla.).

Vegetational change, or plant succession, is described for southern Florida. Several significant shifts in species composition within communities, as well as the replacement of communities, are recognized. These are documented for a 16 to 30-year period and include a landward increase of mangrove forests, loss of coastal hardwood hammocks, both gain and loss of everglade tree islands, replacement of sawgrass by shrubs, pine and hardwood invasion of cypress, and pineland succession to hammock. The specific impact of farming, canals, roads, and exotic plants are also covered. These observations were made during photographic and on-site analysis of one-hundred-mile-square quadrats.

Alexander, T. R., and R. H. Hofstetter. 1975. Some current ecological aspects of Melaleuca quinquenervia (Cav.) Blake in southern Florida. Presentation FAS 39th Annual Meeting, Lakeland, Fla.

Alvarez, K. C., and A. C. McGraw. 1975. Eradication of Melaleuca trees (Melaleuca quinquenervia) from Highland Hammock State Park. Report to Fla. Dept. of Natural Resources, Fla. 5 p.

Arvanitis, L. G. 1978. Distribution mapping of Melaleuca in south Florida via remote sensing. Final report to U.S. For. Serv. Southeast For. Exp. Stn., P.O. Box 2570, Asheville, N. C. 28802. mimeo. 113 p.

Austin, D. F. 1978. Exotic plants and their effects in southeastern Florida. Environmental Conservation 5(1):25-34.

A list of exotic plants naturalized in southeastern Florida, and the history of their introductions. Potential threats to ecosystems and to man are reviewed.

Avery, G. N., and L. L. Loope. 1980. Plants of Everglades National Park: a preliminary checklist of vascular plants. National Park Service, South Florida Research Center Report T-574, Homestead, Fla. 41 p.

Ayensu, E. S. 1980. Firewood crops - shrub and tree species for energy production. National Academy of Sciences, Washington, D.C. Contract No. AID/csd-2584, Task Order No. 1.

Badran, O. A., and S. A. Tawfik. 1971. Stem analysis of some Casuarina spp. grown in U.A.R. Alex. J. Agric. Res. 19:149-157.

Growth analysis of three species of Casuarina trees was studied. The highest growth was shown by Casuarina equisetifolia during the juvenile stage (0-6 years), and by C. cunninghamiana during the maturity stage (12 years and up). Both of these species had a better form factor than did C. stricta.

Badran, O. A., and S. A. Tawfik. 1973. A study of some technological properties of some Casuarina spp. grown in Egypt. Alex. J. Agric. Res. 21:149-158.

Some of the mechanical and physical properties of three identified species of Casuarina timber trees were determined as well as the variation between tree-levels. The findings of this study indicate the possibility of technological uses of Casuarina woods.

Bailey, E. M. 1900. The Queensland Flora. Brisbane. 600 p.

Baker, R. T. 1919. The hardwoods of Australia and their economics. Technological Museum of Tech. Ed., New South Wales. Series 23. 522 p.

Bancroft, L. 1974. Proposed farmland reclamation program for the Hole-in-the-Donut. Mimeo. Rept. National Park Service, Everglades National Park, Homestead, Fla. 33030.

Bancroft, L. 1977. Exotic Plant Control Plan. National Park Service, Everglades National Park, Homestead, Fla. 33030. 39 p.

Barkley, F. A. 1944. Schinus L. Brittonia 5:160-198.

Barkley, F. A. 1957. A study of Schinus L. Lilloa 28:5-110.

Barrett, M. F. 1956. Common Exotic Trees of South Florida. Univ. of Fla. Press, Gainesville, Fla. 414 p.

Taxonomic notes and illustrations of several exotic plants, including Schinus (p. 76-78), Melaleuca (p. 272, 294-296), and Casuarina (p. 58-62).

Begum, R., and A. R. Rizwana. 1979. Blister disease-threat to Casuarina. Geobios 6(1):35-36.

A lethal cambial disease, Trichosporium vesiculosum, is spreading rapidly through Casuarina equisetifolia of all ages.

Bertus, A. L. 1976. A fungal leaf spot and stem blight of some Australian native plants. Agric. Gazette of New South Wales 87(5):22-23.

Melaleuca is susceptible to infection by Cylindrocladium scoparium, a pathogen able to survive in soil for up to 7 months. Controlling fungicides are described.

Bhatnagar, H. P. 1978. Preliminary studies on nutritional requirements of Casuarina equisetifolia and Dipterocarpus macrocarpus seedlings. Indian Journal of Forestry 1(2):121-127.

Height and dry weights were measured to determine best growth results using NPK solutions of different strengths. Best results were with N and P at 900 mg and K at 450 mg.

Blake, S. T. 1968. A revision of Melaleuca leucadendron and its allies (Myrtaceae). Contr. Queensland Herb. 1:1-114.

Booth, H. E. 1952. Early use of paper bark for thermal insulation. New South Wales For. Comm. Div. of Wood Tech. Tech. Notes 6(3):17-19.

Boquel, G., and L. Suavin. 1972. Inhibition of nitrification by aqueous extracts of litters of teak (Tectona grandis) and niaouli (Melaleuca leucadendron). Rev. Ecol. Biol. Soc. 9(4):641-654. (Eng. Summary).

Brighton, C. A., and I. K. Ferguson. 1975. Chromosome counts in the genus Melaleuca (Myrtaceae). Kew Bulletin 31(1):27-34.

Somatic chromosome counts for 57 species of Melaleuca are reported. The common basic number for the genus is x = 11, but a new basic number of x = 12 is reported here for the first time with a polyploid series based on x = 11.

Browder, J. A., and P. B. Schroeder. 1980. Melaleuca seed dispersal and perspectives on control. Proc. of Melaleuca Symp., Fla. Div. of For. 5 p.

A computer model, incorporating turbulence and wind speeds, was designed to predict the dispersal of Melaleuca seeds. Results show that in a normal year seeds would not go beyond 1 km, and that under hurricane conditions, a few seeds would go as far as 7.1 km (but few of these would be viable). Elimination of outlying trees is suggested as an effective control mechanism.

Buffington, J. D. 1974. Assessment of the ecological consequences of herbicidal use along transmission-line rights-of-way and recommendations for such use. Contribution ANL/ES-34 from Argonne National Laboratory, Argonne, Ill. 60439. 44 p.

Callaham, D., W. Newcomb, J. G. Torrey, and R. L. Peterson. 1979. Root hair infection in actinomycete-induced root nodule initiation in Casuarina, Myrica, and Comptonia. Bot. Gaz. 140(suppl.):S1-S9.

The infection process leading to the development of root nodules of Comptonia peregrina, Casuarina cunninghamiana, Myrica gale, and M. cerifera was studied by light and electron microscopy. Observations of this process suggested a period of initial disequilibrium caused by the infection, followed by more harmonious symbiotic growth.

Campbell, G. R., J. W. Campbell, and A. L. Winterbotham. 1980. The first Fund for Animals, Inc. Schinus terebinthifolius Brazil expedition, July 1980. Interim Report. The Fund for Animals, Inc., Box 655, Sanibel, Fla. 22 p.

A search for a biological control agent for Schinus terebinthifolius. Schinus trees are harder to find in Brazil and do not "sucker" or set seed heavily. Five subspecies or varieties are described, flowering and fruiting records given, and some parasites are recorded.

Capehart, B. L., J. J. Ewel, B. R. Sedlik, R. L. Meyers, J. A. Browder, and H. T. Odum. 1977. Remote sensing survey of spread of Melaleuca. Final Report to National Park Service. Photogrammetric Eng. and Remote Sensing 43(2):197-206.

An attempt to employ advanced remote sensing techniques by computer analysis of Earth Resources Technology Satellite (ERTS) imagery to determine the aerial extent of Melaleuca. Because Melaleuca forms variable stands, requiring numerous spectral signatures, it was concluded that ERTS imagery is not a good tool to detect its extent. Includes a computer model simulation of the spread of Melaleuca.

Carranza, J. M. 1950. Anthracnose of the California pepper tree, caused by Myxosprorella schini sp. nov. in Argentina. Rev. Fac. Agron. La Plata 27:275-281.

Challinor, D., and D. B. Wingate. 1971. The struggle for survival of the Bermuda cedar. Bio. Conservation 3(3). 3 p.

The infestation of Bermuda cedar by scale insects and attempts at biological control are reviewed. Plantations of naturalized plants including Schinus terebinthifolius have proved successful as replacements.

Cheng, C. H., and P. C. Kuo. 1973. Effects of pruning and phenylmercuric acetate treatment on the evapotranspiration, survival and growth of transplanted seedlings: Pinus, Casuarina equisetifolia, Albizzia falcata. Mem. Coll. Agric. Natl. Taiwan Univ. 14(2):69-85 (Eng. Summary).

Chiang, S. H. T. 1980. Casparian strips in the lattice-work phellem of Melaleuca leucadendron (L.)L. Taiwania 25:48-56.

Craig, R. M., D. C. Smith, and A. C. Ohlsen. 1978. Changes occurring in coastal dune formation and plant succession along the Martin County coastline. Proc. Soil and Crop Sci. Soc. of Fla. 37. 4 p.

This study determined coastal dune profile changes and plant succession at the Hobe Sound Wildlife Refuge over a 3-year period. Results indicate that Casuarina equisetifolia, growing in thick stands, accelerates dune erosion by producing dense shade and litter that prevent growth of grasses and other soil-stabilizing plants.

Christensen, P. S. 1971. Stimulation of seedfall in Karri. Aust. For. 35(3):182-190.

Clark, J., and J. Clark (eds.). 1979. Scientist Report - National Symposium on Wetlands, Nov. 6-9, 1978. Lake Buena Vista, Fla. National Wetlands Technical Council, Wa. 129 p.

Cole, D. P. (ed.) 1979. The restoration and creation of wetlands. Proc. 6th Ann. Conf. of Wetlands Restoration and Creation, May 19, 1979. Envir. Studies Center, Hillsborough Comm. Coll., Tampa, Fla. 357 p.

Conde, L. F. 1979. Growth in natural stands of Melaleuca quinquenervia and Casuarina equisetifolia in south Florida. Final Report. Supplement No. 30 to U.S. Forest Service Contract No. A8fs-9,961. 23 p.

Conde, L. F., D. L. Rockwood, and R. F. Fisher. 1980. Growth studies on Melaleuca. Proc. of Melaleuca Symp., Fla. Div. of For. 6 p.

Describes the establishment of several studies to evaluate growth rates of Melaleuca and reports first year results on coppice crop (resprouting) yield.

Cost, N. D., and G. C. Craver. 1980. Distribution of Melaleuca in south Florida measured from the air. Proc. of Melaleuca Symp., Fla. Div. of For. 8 p.

Lines were flown across 7.6 million acres of south Florida and occurrence of Melaleuca quinquenervia was tallied. Results indicate Melaleuca occurs on about 6% of the land, and trends in marsh and urban areas indicate continued invasion.

Craighead, F. C., Sr. 1971. The trees of south Florida. Univ. of Miami Press. Coral Gables, Fla. 212 p.

Craighead, F. C., Sr. 1974. Hammocks of south Florida. p. 53-60 in P. J. Gleason (ed.) Environments of South Florida: Present and Past. Miami Geol. Soc. Mem. 2.

Cremer, K. W. 1977. Distance of seed dispersal in eucalypts estimated by seed weight. Australian Forest Research 7:225-228.

Crowder, J. P. 1974. Exotic pest plants of south Florida. U.S. Dept. of Interior, Bureau of Sport Fisheries and Wildlife, Atlanta, Ga. 39 p.

Curran, C. E., S. L. Schwartz, and M. W. Bray. 1934. The pulping of cajeput, white mangrove, Australian pine, and Cunningham pine by the sulphate process. Paper Trade Jour. Tech. Assn. Sec. 98(23):44-47.

Daughtrey, R. 1955. Coughdrops, furniture seen from cajeputs. Fort Myers News-Press. July 17, 1955.

Daughtrey, R. 1957. Planted by Orr at La Belle, 160-acre cajeput forest. Fort Myers News-Press. Feb. 20, 1957.

Davis, E. M. 1950. Some machining characteristics of certain south Florida species. U.S. Dept. Agr. For. Ser., For. Prod. Lab., Madison, Wisc. (unpublished).

Davis, J. H. 1943. The natural features of southern Florida especially the vegetation and the Everglades. Fla. Biol. Surv. Bull. 25. 311 p.

Debenham, C. N. 1962. The Genus Melaleuca. Australian Plants 1(10):23-28.

Debenham, C. N. 1963. The Genus Melaleuca. Australian Plants 2(14):57-59.

An overview of the genus, history of nomenclature, some items of commercial value and a key to species.

Doan, C. 1971. The most dangerous insect pests of forest nurseries and juvenile growth in Vietnam. Erdo 20(6):259-261.

Notes on cockchafers that attack various hardwoods, including Casuarina equisetifolia, in Vietnam, their bionomics and control with BHC.

Doskotch, R. W. 1979. Isolation and identification of plant-derived substances affecting the feeding of Gypsy moth larvae. Dissertation, Ohio State Univ., Columbus, Ohio. 231 p.

This study attempted to isolate antifeeding substances for gypsy moth larvae from four plants, Liriodendron tulipifera, Kalmia latifolia, Podocarpus macrophyllia, and Melaleuca leucadendron. Melaleuca yielded (+)-trans-nerol-idol.

Doskotch, R. W., H. Y. Cheng, T. M. Odell, and L. Girard. 1980. Nerolidol: an antifeeding sesquiterpene alcohol for gypsy moth larvae from Melaleuca leucodendron. Journal of Chem. Eco. 6(4). 7 p.

Dowell, R. V., and B. Steinberg. 1979. Development and survival of immature citrus blackfly (Homoptera: Aleyrodidae) on 23 plant species. Annals of the Entomological Soc. of America 72(6). 4 p.

Schinus terebinthifolius is an important host plant.

Drew, M. A. (ed.) 1978. Environmental quality through wetlands utilization. Proc. of Symp. on Freshwater Wetlands. Feb. 28-Mar 2, 1978. Tallahassee, Fla. Sponsored by Coordinating Council on the Restoration of the Kissimmee River Valley and Taylor Creek - Nubbin Slough Basin. 243 p.

Duever, M. J., J. E. Carlson, J. F. Meador, et al. 1979. Resource inventory and analysis of the Big Cypress National Preserve (Vol. 1). Final Rep. USDI National Park Service, Homestead, FLa., Contract #CX500070899. Cent. for Wetlands, Univ. Fla., and Ecosystem Res. Unit of Natl. Audubon Soc. 700 p.

Dunevitz, V. L., and J. J. Ewel. 1981. Allelopathy of wax myrtle (Myrica cerifera) on Schinus terebinthifolius. Fla. Scientist 44:1-13.

Nutrient solution leached through soil in which wax myrtle was rooted inhibited growth of Schinus.

Egler, F. E. 1952. Southeast saline Everglades vegetation, Florida, and its management. Vegetatio Acta Geobotanica 3:213-265.

The area is described in terms of 7 vegetation belts, each with its own patterns of change and potential management. Casuarina is considered a successful invader in 4 of these zones. Invasion cycles and succession are described for Casuarina forests on marl and peat, taking into account the catastrophes of fire and hurricane.

el-Ansari, M. A., M. S. Ishak, A. A. Ahmed, and A. M. Saleh. 1977. Flavonol glycosides of Carya pecan and Casuarina equisetifolia. Z. Naturforsch. Sect. C Biosci. 32(5/6):444-445.

Eluwa, M. C. 1979. Biology of Lixus camerunus Kolbe (Coleoptera curculionidae): a major part of the edible vernonias (Compositae) in Nigeria. Revue de Zoologie, Africaine 93(1):223-240 (English).

L. camerunus is known to attack not only the bitterleaf (V. amygdalina) but also the young foliage of Casuarina equisetifolia.

Ewel, J. J., R. Meador, R. Myers, L. Conde, and B. Sedlick. 1976. Studies of vegetation changes in south Florida. Final Rep., U.S. For. Serv., Southeast For. Exp. Stn., Macon, Ga. Contract #18-492. 119 p.

Ewel, J. J., and R. Myers. 1976. Assessment of Melaleuca distribution and spread. p. 72-77 in J. J. Ewel, et. al. (eds), Studies of vegetation changes in south Florida. Final Rep. U.S. For. Serv. Southeast For. Exp. Stn., Macon, Ga. Subcontract #18-492.

Ewel, J. J. 1978. Ecology of Schinus. Technical proceedings of techniques for control of Schinus in south Florida: a workshop for natural area managers. The Sanibel-Captiva Conservation Foundation, Inc., Sanibel, Fla. 12 p.

Summary of first-year findings on ecology of Schinus, especially features of stand structure and reproduction which may be useful in potential control. Includes structure of old Schinus woodlands, phenology, dispersal, natural germination, seedling growth and survival, weed characteristics and control strategies.

Ewel, J. J., and L. Conde. 1979. Seeds in soils of former Everglades farmlands. p. 225-234 in R. M. Linn (ed.), Proceedings of the First Conference on Scientific Research in the National Parks, New Orleans, Nov. 9-12, 1976.

Ewel, J. J., D. S. Ojima, D. A. Karl, and W. F. DeBusk. 1982. Schinus in Successional Ecosystems of Everglades National Park. National Park Service, South Florida Research Center Report T-676, Homestead, Fla. 33030.

This 3-year study deals with the autecology, silvics, population biology, and community ecology of Schinus. Topics covered include: phenology, pollination, dispersal, germination, seedling dynamics, seedling growth and survivorship, invasibility, and stand structure. Schinus control is described under herbicide tests and stand conversion through matricide.

Fairchild, D. 1947. The World Grows Round my Door. Charles Scribner's Sons, New York.

Includes a reference to "volunteer" Melaleuca seedlings gathered and sold as landscape plants.

Flores, E. M. 1977. Developmental studies in Casuarina (Casuarinaceae) III. The anatomy of the mature branchlet. Rev. Biol. Trop. 25(1):65-87.

Flores, E. M. 1978. The shoot apex of Casuarina (Casuarinaceae). Rev. Biol. Trop. 26(1):247-260.

Flores, E. M. 1980. Shoot vascular system and phyllotaxis of Casuarina (Casuarinaceae). Amer. J. Bot. 67(2):131-140.

Gauthier, D., H. G. Diem, and Y. Dommargues. 1981. In vitro-nitrogen fixation by two actinomycete strains isolated from Casuarina nodules. Applied and Envir. Microbiology 41(1):306-308.

Geary, T. F., and C. B. Briscoe. 1972. Tree species for plantations in the granitic uplands of Puerto Rico. For. Serv. Res. Paper, Inst. of Trop. For., Puerto Rico. No. ITF-14. 8 p.

Gives details of survival and growth of 32 tree species tested. C. equisetifolia is described as suitable for owners interested only in post and pole crops.

Geary, T. F., J. R. Saucier, K. R. Purdy, and J. A. Knight. 1980. Melaleuca as a source of boiler fuel and activated carbon. Proc. of Melaleuca Symp., Fla. Div. of For. 10 p.

Describes the pyrolysis of Melaleuca chips into char, oil, and gas, and gives results of fuel efficiency tests.

Geiger, R. K. 1980. Health Survey. Proc. of Melaleuca Symp. Fla. Div. of For. 2 p.

The results of a survey of 15 Florida allergists who were asked questions relative to Melaleuca as a health problem.

General Electric Corp. 1975. Survey of the spread of Melaleuca using digital LANDSAT imagery. Report to the Center for Wetlands, Univ. of Florida. Gainesville, Fla.

Difficulties in using this system to identify Melaleuca include satellite sensor resolution and ambiguity between Melaleuca and mangrove populations.

Gerry, Eloise. 1955. Cajeput tea tree, Melaleuca leucadendron Linn. Information Leaflet, Foreign Woods. For. Prod. Lab., For. Ser., USDA. 8 p.

Gifford, J. 1912. The Everglades and other essays relating to southern Florida. 2nd edition. Everglades Land Sales Co., Miami, Fla. 226 p.

Gifford, J. C. 1935. The Reclamation of the Everglades with Trees. New York Books, Inc. 90 p.

Several trees, including Cajeput and Australian pine, are suggested as valuable alternatives to native vegetation in wetlands.

Gochenaur, S. E. 1975. Distributional patterns of mesophilous and thermophilous microfungi in two Bahamian soils. Mycopathologia 57(3):155-164.

The two soils studied are from a coconut grove (and environment subject to high solar radiation) and a Casuarina equisetifolia forest (relatively moist with high organic matter).

Gogue, G. J., C. J. Hurst, and L. Bancroft. 1974. Growth inhibition by Schinus terebinthifolius. Amer. Soc. Hort. Sci. 9(3):45.

Growth of Bromus rigidus was inhibited by leachates from Schinus, especially by fruit leachates. Thin layer chromotography of fruit leachates, bioassays and mass spectrometer identification indicate that galic and ferulic acid derivitives are present in the active inhibitors.

Habeck, D. H. 1980. Potential for biological control of Melaleuca. Proc. of Melaleuca Symp., Fla. Div. of For. 4 p.

Some of the many insects which feed on Melaleuca appear to be good candidates for biological control, but more work is needed on host-specificity. Conflict of interest is the greatest drawback to the introduction of biological control agents.

Haeger, J. S. 1978. Some aspects of controlling Schinus and some physiological effects. Tech. Proc. of Techniques for Control of Schinus in South Florida: a workshop for natural area managers. The Sanibel-Captiva Conservation Foundation, Inc., Sanibel, Fla. p. 49-52.

Hagemann, P. 1976. Anatomical studies of club-shaped trees. Casuarina. Mikrokosmos 65(9):283-285 (German).

Hall, J. M. 1977. Observations and analysis of Melaleuca quinquenervia in Florida. Fla. Scientist. 40(suppl. 1):12.

Harrison, D. 1966. Aquatic Weed Control. Univ. of Fla. Agric. Ext. Serv., Gainesville, Fla. 15 p.

Includes tables with suggested herbicides and rates of application for aquatic plants and for ditchbank brush and trees (including Schinus and Casuarina).

Hilsenbeck, C. E. 1972. An investigation of Schinus terebinthifolius in Everglades National Park. Mimeo Report. National Park Service, Everglades National Park, Homestead, Fla. 22 p.

A 3-month investigation showed that Schinus is established and increasing in the four park communities studied: pineland, prairie, farmland, and buttonwood-mangrove. Outside the park, Schinus monoclimax communities are developing in high pine areas and on abandoned farmland.

Hilsenbeck, C. 1976. A comparison of forest sampling methods in hammock vegetation. Unpublished Master's Thesis. Univ. of Miami, Coral Gables, Fla. 92 p.

Hilsenbeck, C. 1976. An investigation of old field succession in Everglades National Park, First Interim Report. National Park Service, Everglades National Park. 63 p.

Preliminary results, including experiment form and design. The pioneer communities were analyzed and found to be more complex on elevated loam soils. Secondary succession seems to be dominated by wood perennials. No exotic trees were in study plots as of Feb. 1976.

Hilsenbeck, C. E. 1976. A comparative study of the effectiveness of four herbicide treatments in controlling Schinus terebinthifolius. Mimeo., Everglades National Park. 14 p.

Four herbicide treatments (ammate, 2,4-D, Silvasar 510, and 2,4-1, D + Silvasar) were applied to the cut stumps of Schinus in 3 diameter classes: 5 cm, 10 cm and 15 cm. Silvasar used alone proved the most effective at killing stumps and retarding growth of resprouts. More work is recommended.

Hoehne, F. C. 1939. Plantas e substancias vegetais toxicas e medicinais. Jardim botanico, Sao Paulo, Graphicars, p. 184.

Hofstetter, R. H. 1973. Effects of fire in the ecosystem: An ecological survey of the effects of fire on the wet prairie, sawgrass glades, and pineland communities of south Florida, Part I. Appendix K. EVER-N-48. USDI-NPS NTIS PB231940. 156 p.

Hofstetter, R. H. and F. Parsons. 1975. Effects of fire in the ecosystem: An ecological study of the effects of fire on the wet prairies, sawgrass glades and pineland communities of south Florida, Part II. Appendix K, EVER-N-48, Final Report, USDI-NPS. NTIS PB264463.

Hofstetter, R. H. 1976. Current status of vegetation and possible indications of vegetational trends in the Everglades. Part 1: An evaluation of the current status of sawgrass in the Everglades. Part 2a: Cajeput in southern Florida. Part 2b: Factors affecting the major natural communities of southern Florida. Mimeo. Report on contract 18-492, USDA, Forest Service, Lehigh Acres, Fla. 49 p.

Includes a table evaluating the severity of various threats to the major vegetation communities. Factors considered include land alteration, exotics, fire, changes in hydroperiod, and nutrient enrichment.

Hofstetter, R. H. and C. Hilsenbeck. 1980. Vegetational studies of the East Everglades. East Everglades Resources Planning Project. Metro Dade County. 109 p.

A synopsis of East Everglades vegetation, including the extent of exotic invasion and recommendations for herbicide treatments.

Hozumi, K., K. Yoda, S. Kokawa, and T. Kira. 1969. Production ecology of tropical rain forest in southwestern Cambodia. I. Plant biomass. Nature and Life in Southeast Asia 6:1-51.

Biomass studies were done in 3 forest types, including a Melaleuca swamp forest.

Huffman, J. B. 1977 (Rev. 1980). Florida's Melaleuca, a utilization status report and problem analysis. Res. Rep. No. 26. Sch. For. Res. and Cons., Univ. of Fla., Gainesville. 19 p.

Huffman, J. B. 1980. Melaleuca wood and bark utilization research--a progress report. Proc. of Melaleuca Symp., Fla. Div. of For. 31 p.

A summary of past uses for Melaleuca products, a review of utilization research done in the U.S., and current research at the Univ. of Fla., Gainesville, including methods of bark removal, bark characteristics, sawing, drying of lumber, fence post durability, use as stakes, durability in marine waters, use as fuel, and quantification of contained chemicals.

Hui, W. H. and M. M. Li. 1976. Neutral triterpenoids from Melaleuca leucadendron. Phytochemistry 15(4):563.

Intari, S. E. 1978. Some important pests of forest trees in Indonesia. Proceedings of the 8th World Forestry Congress, Jakarta, Oct. 1978. For. Res. Inst., Gunung Batu 1, Bogor, Indonesia. 6 p.

Includes notes on Macrotermes gilvus, Microtermes insperatus, and Melaleuca leucadendron.

Jacobson, M. 1958. Insecticides from plants: A review of the literature. 1941-1953 Agric. Handbook 154. U.S. Dept. Agric.

Jumale, M. M. 1980. Sand dune control in the Marka area of Somalia. Somalia Range Bulletin No. 10. 3 p.

Manyawka, Casuarina, Tamarix, Acacia cynophylla and coconut were planted to stabilize sand dunes along the coast of Somalia. All were successful except Manyawka, which is thought to have failed due to drought.

Kadlec, J. A., and W. A. Wentz. 1974. State-of-the-art survey and evaluation of marsh plant establishment techniques: induced and natural. Vol. 1: Report of Research. U.S. Army Corps of Engineers, Waterways Expt. Sta. Vicksburg, Miss. 271 p.

Kaistha, K. K. 1962. A phytochemical investigation of the fruits of Schinus terebinthifolius (Radd). Diss. Abstr. 23:844-845.

Kaistha, K. K. and L. B. Kier. 1962. Structural studies on the triterpenes of Schinus terebinthifolius. Jour. Pharmaceut. Sci. 51(12):1136-1139.

Kant, S., and H. S. Narayana. 1977. Preliminary studies on the development and structure of root nodules in Casuarina equisetifolia L. Proc. Indian Acad. Sci., Sec B. 85(1):34-41.

Kant, S., and A. S. Narayana. 1978. Effect of water stress on growth, nodulation and nitrogen fixation in Casuarina equisetifolia. Annals of Arid Zone 17(2):216-221.

Shoot and root weights, nodule size and number, nodule weight, and amount of N_2 fixed decreased with increasing water stress when potted C. equisetifolia seedlings were watered to field capacity every 24, 48, or 72 hours.

Klein, M., S. Dabush, and M. Bar-Joseph 1979. A preliminary report on the occurrence of bacteria-like organisms in both phloem and xylem tissues of stunted Melaleuca armilaris plants. Phytoparasitica 7(3):169-175.

A disease of Melaleuca armilaris (Myrtaceae) plants, belonging to the yellows group of diseases, is described from Israel. The disease was associated with bacteria-like organisms (BLO) occurring in growing tips. The BLO were observed in both xylem and phloem tissues. Electron microscope observations demonstrated that the overall number of cells invaded by BLO in winter, when seen best, was relatively small. BLO diameter was 400 to 650 mm and length was 950 to 1400 mm.

Klukas, R. W. 1969. The exotic plant problem in Everglades National Park. The Anhinga, Everglades National Hist. Assoc., Apr. 3 p.

Klukas, R. W. and W. G. Truesdell. 1969. The Australian Pine problem in Everglades National Park. Part 1: The problem and some possible solutions. Part 2: Management plan for exotic plant eradication (Casuarina equisetifolia). Everglades National Park, Homestead, Fla. 22 p.

Populations of Australian Pine within Everglades National Park and Biscayne National Park are located, vulnerable plant and animal communities are identified, and control methods are discussed. Photos.

Koepp, W. P. 1978. The status of Schinus manipulation in Everglades National Park. Tech. Proc. of Techniques for Control of Schinus in South Florida: a workshop for natural area managers. The Sanibel-Captiva Conservation Foundation, Inc., Sanibel, Fla. p. 45-47.

Koki, Z. 1972. Study on the relation of leaf area and leaf weight. Science Bulletin of the College of Agriculture, Univ. of the Ryukyus, Okinawa No. 19: p. 559-569.

Gives regression equations expressing the relation between leaf weight and leaf area for Casuarina equisetifolia and 9 other hardwood species found in Okinawa.

Krauss, N. L. H. 1963. Biological control investigations on Christmas Berry (Schinus terebinthifolius) and Emex (Emex spp.). Proc. Hawaiian Entomological Society 43(2). 7 p.

Includes a list of insects found to utilze these plants in their homelands, and documents the release of some of the more promising in Hawaii.

Lahart, D. 1977. Invaders of the Everglades. Florida Wildlife 33:33-36.

Lamont, B. 1979. Root systems of the Myrtaceae. Australian Plants 10(78):9-19.

Root anatomy and growth in relation to mycorrhizae are discussed for various woody plants including Melaleuca sp.

Leposky, G. 1980. Back to Nature. Environment, Miami Magazine. May. p. 36.

Brief farming history of the Hole-in-the-Donut, Everglades National Park, descriptions of current vegetation (largely Schinus), and methods used to revegetate with native hardwoods.

Le Roux, P. J. 1974. Establishing vegetation in saline soil to stabilize aeolian sand at Walvis Bay, South-West Africa. Forestry in South Africa 15:43-46.

Casuarina equisetifolia failed on saline silt and on dune sand irrigated with sea-water, but grew well when irrigated with sewage water.

Li, Y. G., S. L. Chen, Q. M. Xie, Q. J. Cai, J. Wu, Y. W. Li, Q. X. Zheng, Z. W. Zhu, B. T. Zhou, and H. Q. Zheng. 1981. Studies on the lymantriid moth Lymatria xylina Swinhoe (pest of the coast oak trees, Casuarina equisetifolia, C. glauca, in Fujian Province, natural enemies, nuclear polyhedrosis virus and the parasitic wasp Ocencyrtus). Acta entomologica Sinica 24(2):174-183.

Little, E. L., Jr., R. O. Woodbury, and F. H. Wadsworth. 1974. Trees of Puerto Rico and the Virgin Islands, Vol. 2. Agriculture Handbook No. 449. USDA, Forest Service, Washington, D.C. 1024 p.

Liu, L. J., and L. F. Martorell. 1973. Diplodia stem canker and die-back of Casuarina equisetifolia in Puerto Rico. J. of Agric. of the Univ. of Puerto Rico 42(3):255-261.

Seedlings of Casuarina equisetifolia were inoculated with isolates of D. natalensis from cankers. Sunken areas (cankers) appeared on the bark after 3 months. Benlate was the best fungicide.

Lloyd, H. A., T. M. Jaoun, S. L. Evans, and J. F. Morton. 1977. Terpenes of Schinus terebinthifolius. Phytochemistry 16(8). 2 p.

Schinus terebinthifolius is a suspected cause of allergies. Extracts yielded a variety of compounds including a mixture of volatile monoterpenes.

Lockley, R. F., J. J. Stablein, and L. R. F. Binford. 1980. Melaleuca tree and respiratory disease: allergen or irritant effect of Melaleuca pollen and odor, respectively, in patients with allergic and respiratory disease. Proc. of Melaleuca Symp., Fla. Div. of For. 16 p.

This study indicates that persons are rarely allergic to Melaleuca pollen, and that insignificant quantities of the pollen are airborne. The data also indicate that the odor of Melaleuca does not cause respiratory disease.

Long, R. W., and O. Lakela. 1971. A Flora of Tropical Florida. Univ. of Miami Press, Coral Gables, Fla.

Loope, L. L., and V. L. Dunevitz. 1981. Investigations of early plant succession on abandoned farmland in Everglades National Park. National Park Service, South Florida Research Center Report T-644, Homestead, Fla.

Plant succession on abandoned farmland in the Everglades results in a mosaic of recovery communities. Five years after abandonment, recovery communities on dry (former pineland) sites were composed mostly of herbaceous species. Recovery communities on farmland abandoned in 1965 and bulldozed in 1979 showed a predominance of "weed" species not found in adjoining native ecosystems. Schinus terebinthifolius is present throughout the Hole-in-the-Donut at varying densities and is continuing to spread, perhaps by as much as 20 times its population density per year.

Loope, L. L. and V. L. Dunevitz. 1981. Impact of fire exclusion and invasion of Schinus terebinthifolius on limestone rockland pine forests of southeastern Florida. National Park Service, South Florida Research Center, Report T-645, Homestead, Fla.

Exclusion of fire from stands of Pinus elliottii var. densa on limestone substrates of Dade County in southeastern Florida results in shading of the understory by native tropical hardwood tree species. The exotic tree Schinus terebinthifolius has extensively invaded most remaining rockland pine forests outside Everglades National Park. Prescribed burning of pine stands at 5-year intervals within Everglades National Park has apparently largely prevented establishment of Schinus there. Eventual requirements for pine regeneration as the stands approach maturity may result in application of less frequent, more severe prescribed fires. If such a regime results in the expected accelerated Schinus invasion, use of herbicides on Schinus may be necessary to maintain the native pineland ecosystem.

Loope, L. L., and N. H. Urban. 1980. A survey of fire history and impact in tropical hardwood hammocks in the East Everglades and adjacent portions of Everglades National Park. National Park Service, South Florida Research Center Report T-592, Homestead, Fla. 48 p.

Includes mapped hammocks and occurrence of exotics.

Lowry, J. B. 1973. A new constituent of biogenetic, pharmacological, and historical interest from Melaleuca cajeputi oil. Nature 241:61-62.

Maheswari, S., R. G. Nayak, P. M. Meshramkar, and N. S. Jaspal. 1979. Comparative studies on the pulping and papermaking properties of Casuarina equisetifolia and Eucalyptus hybrid. Indian Pulp and Paper 34(3). 5 p.

Both trees are considered adequate for paper making. Some long-fibered pulp is suggested for blending with the weaker Casuarina pulp if paper is made on fast-running machines.

Maier, W. 1975. Minutes of the first Melaleuca workshop, June 1975, Hollywood, Fla. Florida Game and Fresh Water Fish Comm., Ft. Lauderdale, Fla. 15 p.

Maier, W. 1975. Minutes of the second Melaleuca workshop, November 1975, West Palm Beach, Fla. Florida Game and Fresh Water Fish Comm., Ft. Lauderdale, Fla. 15 p.

Maier, W. L. 1976. Evaluation of the effectiveness of herbicides for the control of Melaleuca quinquenervia. Unpub. rept., Florida Game and Fresh Water Fish Comm., Ft. Lauderdale, Fla. 9 p.

Marlatt, R. B. and W. H. Ridings. 1979. Sphaeropsis gall of Schinus terebinthifolius, a new host. Plant Disease Reporter 63(9). 2 p.

A galling caused by Sphaeropsis tumefaciens, a wound invader, is an inadequate control for the weed Schinus terebinthifolius under natural conditions, but is considered a threat to valuable ornamental hosts.

Mazzotti, F. J., W. Ostrenko, and A. T. Smith. 1981. Effects of the exotic plants Melaleuca quinquenervia and Casuarina equisetifolia on small mammal populations in the eastern Florida Everglades. Fla. Scientist. 44(2):65-71.

The effect of Melaleuca and Casuarina on the three rodents (Peromyscus, Sigmodon, and Oryzomys) found in the Everglades was studied in three habitats. Casuarina habitats supported fewer rodents than cocoplum or Melaleuca habitats.

Meador, R. E. 1976. Transpiration of Melaleuca and Taxodium seedlings. p. 246-268 in H. T. Odum, K. C. Ewel, J. W. Ordway, and M. K. Johnston, (eds.), Cypress wetlands for water management, recycling, and conservation (3rd Annu. Rep.) Cent. Wetlands, Univ. of Fla., Gainesville. 879 p.

Meador, R. E. 1977. The role of mycorrhizae in influencing succession on abandoned Everglades farmland. Unpublished Master's Thesis. Univ. of Fla., Gainesville. 100 p.

Though the endpoint in succession that park managers would like to see in the Hole-in-the-Donut area (Everglades National Park) is a return to a non-mycorrhizal native species assemblage, the present (altered) environmental conditions favor mycorrhizal species. One possible way to change this is to raise water levels, allowing non-mycorrhizal species to dominate again.

Mendoza, V. B. 1978. Adaptability of six tree species to cogonal areas: additional information on and possible role of phenols and sugars. Sylvatrop (3)1. 8 p.

Cogon (Imperata cylindrica) leachate was used on 6 trees, including Casuarina equisetifolia to determine if it was harmful. Casuarina equisetifolia was least affected by cogon and showed the best height growth.

Menninger, E. A. 1961. Ornamental Melaleucas for subtropical gardens. Amer. Hort. Mag. 40(2).

Meskimen, G. F. 1962. A silvical study of the Melaleuca tree in southern Florida. Master's Thesis, Univ. of Fla., Gainesville. 177 p.

The results of greenhouse, laboratory, and field studies regarding silvical characteristics of Melaleuca, including flowering, seed drop and dispersal, germination on different soil types, recovery from fire and flood, growth periodicity and shade tolerance. Potential commercial uses are explored and speculation is made on the species' future spread.

Moldenke, H. N. 1944. A contribution to our knowledge of the wild and cultivated flora of Florida--1. Amer. Midl. Nat. 32 (3):529-590.

Morrison, F. R. 1958. Essential oils from "tea-trees." So. Pac. Quart. Bull. 6(1):47-49.

Morse, G. D. 1976. Not everybody likes pollen (what's meat to a bee may be poison to some folks). Gleanings in Bee Culture. Dec. issue. A. I. Root Co., Medina, Ohio.

Morton, J. F. 1962. Ornamental plants with toxic and/or irritant properties. II. Proc. Fla. St. Hort. Soc. 75:484.

Morton, J. F. 1964. Honey bee plants of south Florida. Proc. Fla. St. Hort. Soc. 77.

The qualities of Melaleuca and other plants are described relative to their values in honey production.

Morton, J. F. 1966. The cajeput tree--a boon and an affliction. Econ. Bot. 20:31-39.

A review of characteristics, culture, and some commercial uses of Melaleuca, including wood products, medicinal oils, and use as an insect repellent. References are also made to Melaleuca's possible irritant effects.

Morton, J. F. 1969. Some ornamental plants excreting respiratory irritants. Proc. Fla. St. Hort. Soc. 82:415-421.

A review including Schinus and Melaleuca.

Morton, J. F. 1975. Melaleuca as a human health hazard and enemy of the environment. Comments at Melaleuca workshop, West Palm Beach, Fla., November 18, 1975.

Morton, J. F. 1976. Pestiferous spread of many ornamental and fruit species in south Florida. Proc. Fla. St. Hort. Soc. 89:348-353.

A list of over 200 exotic plants with "weed tendencies" and their habitats.

Morton, J. F. 1977. Plants poisonous to people in Florida and other warm areas. Fairchild Tropical Garden. Miami, Fla. 116 p.

Morton, J. F. 1979. Brazilian pepper - its impact on people, animals, and the environment. Econ. Bot. 32(4):353-359.

An overview of Schinus as an irritant, invader, and host to insect and fungal pests.

Morton, J. F. 1980. The Australian Pine or Beefwood (Casuarina equisetifolia L.), an invasive "weed" tree in Florida. Proc. Fla. St. Hort. Soc. 93:87-95.

A report on the introduction of Casuarina and some of the threats it may pose.

Mound, L. A. 1970. Convoluted maxillary stylets and the systematics of some Phloeothripine Thysanoptera from Casuarina trees in Australia. Aust. J. Zool. 18:439-463.

It is suggested that 12 species with convoluted maxillary stylets are adapted to feeding on chlorophyllous tissues of Casuarina trees.

Mount, A. B. 1969. Eucalypt ecology as related to fire. Proc. Tall Timbers Fire Ecol. Conf. (Tallahassee, Fla., April 1969) 9:75-108.

Moustafa, A. B., B. M. A. El-Hady, and N. A. Ghanem. 1980. Aqueous polymerization of methyl methacrylate in presence of Casuarina sawdust and composites thereof. Die Angewandte Makromolekulare Chemie 85:91-105.

The technique of polymerizing methyl methacrylate (MMA) in water using sodium bisulphite as initiator in presence of various substances and metal powders was extended to Casuarina sawdust, which was used either without prior washing or after being washed with water or solvents.

Mowry, H. 1933. Symbiotic nitrogen fixation in the genus Casuarina. Soil Sci., 36(6):409-425.

Mralirangan, M. C. 1978. Feeding preferences of adults and mandibular morphology in the different instars of Eyprepocnemis alacris alacris (Serv.) (Orthoptera: Acrididae). Current Science 47(3):101-104.

Thirty-eight species of plants were tested and only 8 were eaten without reluctance, one of which was Casuarina equisetifolia.

Myers, R. L. 1975. The relationship of site conditions to the invading capability of Melaleuca quinquenervia in southern Florida. Master's Thesis, Univ. of Fla., Gainesville, Fla.

Melaleuca seeds were sown and seedlings periodically planted in several representative vegetation types. A few seeds germinated and survived on disturbed sites, but none on undisturbed sites. Growth of planted seedlings was greatest on sites that were either recently disturbed or without dense forest canopies. Greenhouse studies determined moisture requirements for germination and seedling growth under hydroperiod variation and differences in dissolved oxygen.

Myers, R. L. 1976. Melaleuca field studies. p. 4-24 in Ewel, J. J., R. Meador, R. Myers, L. Conde, and B. Sedlick (eds.), Studies of vegetation changes in south Florida. U.S. Forest Service Research Agreement 18-492.

Myers, R. L. 1978. Site susceptibility to the invasion of the exotic tree Melaleuca quinquenervia in southern Florida. Unpub. manuscript.

Narayanamurii, D. and J. Singh. 1962. Notes on Melaleuca bark and its utilization. Paintindia 12(9).

Natarajan, S., V. V. S. Murti, and T. R. Seshadri. 1971. Chemotaxonomical studies of some species of Casuarina. Phytochemistry 10(5):1083-1085.

Natawiria, D. S., E. Intari, and H. Sidabutar. 1973. Trial prevention of attack by the termite Macrotermes gilvus on a plantation of Melaleuca leucadendron at Cikampek, W. Java. Laporan Lembaga Penelitian Hutan 173. 23 p.

Subterranean termites caused 50% mortality of Melaleuca leucadendron planted on lowland lateritic sites where old plantations of other hardwoods were being converted. Soil treatments with pesticides prior to planting effectively prevented termite attack without significant effects on growth during the first 6 months.

Neel, P. L., E. O. Burt and S. L. Carlyle. 1979. Tolerance of 5 warm-season turf grasses and 36 ornamental plant species to asulam. J. of Amer. Soc. for Hort. Sci. 104(1):129-132.

In this study Schinus terebinthifolius was one of 4 shrubs demonstrating a sensitivity to asulam at 2.24 and 4.48 kg/ha.

Nelson, R. E. 1972. Black twig borer - a tree killer in Hawaii. USDA, Forest Service Research Note. Pacific S.W. For. and Range Exp. Stn. No. PSW-274. 2 p.

Attacks by Xylosandrus compactus were associated with the death of large and vigorous trees of 5 species, including Melaleuca leucadendron.

Nilsen, E. T., and W. H. Muller. 1980. A comparison of the relative naturalization ability of two Schinus species in southern California. I. Seed germination. Bull. Torrey Bot. Club 107:51-66.

Both Schinus molle L. and S. terebinthifolius Raddi have been grown as ornamentals in southern California for over 100 years, but only S. molle has become naturalized. Slower germination rates for Schinus terebinthifolius may not take advantage of the brief periods of soil moisture.

Norris, R. 1955. Melaleuca nectar makes objectionable honey. Trop. Homes and Gard. 5(11):22.

Oakman, H. 1962. Some trees of Australia. Jacaranda Press., Brisbane.

O'Connor, J. A., D. G. Parbery, and W. Strauss. 1975. The effects of phytotoxic gases on native Australian plant species: Part 2. Acute injury due to ozone. Envir. Pollution 9(3):181-192.

The relative sensitivity of 120 Australian tree and shrub species to ozone injury was studied. Six species, including a Melaleuca, suffered acute foliar injury.

Oliveira, F. de, and A. Souza Grotta. 1965. Contribucao ao estudo morphologico e anatomico de Schinus terebinthifolius Raddi, Anacardiaceae. Revista da Faculdade de Farmacia e Bioquimica da Universidade de Sao Paulo. 3:271-293 (Portuguese).

Olmsted, I. C. 1978. Stomatal resistance and water stress in Melaleuca. Final contract report to USDA Forest Service, Southeast. For. Exp. Stn., Lehigh Acres, Fla. 36 p.

Xylem water potential and stomatal diffusion resistance measurements are made for Melaleuca quinquenervia and other native and exotic species.

Olson, D. F., Jr., and E. Q. P. Petteys. 1974. Casuarina, L. Seed production. Agric. Handbook, USDA. 450:278-280.

Ostrenko, W., and F. Mazzotti. 1980. Small mammal populations in Melaleuca quinquenervia communities in the eastern Florida Everglades. Proc. of Melaleuca Symp., Fla. Div. of For. 8 p.

Rodent populations were monitored in 5 habitats: mature Melaleuca head, dense young Melaleuca, Melaleuca mixed with graminoids, sawgrass prairie, and a roadside covered with Schinus terebinthifolius. Peromyscus gossypinus was found in all habitats, primarily in Melaleuca; Oryzomys pallustris was found occasionally in Melaleuca, and Sigmadon hispidus did not occur in Melaleuca habitats. Blarina brevicaudo was also captured in Melaleuca (rare).

Owadally, A. W. 1980. Some forest pests and diseases in Mauritius. Revue Agricole et Sucrière de l'Ile Maurice 59(2):76-94.

Various pests and diseases are reviewed, with notes on the type of damage caused by each, and on any known method of control. Included is Cratopus punctum on Casuarina equisetifolia.

Panouse-Perrine, J. 1955. Propos d'acualite sur les Melaleuca. Bois et forêts des Trop. 43.

Pant, D. D., D. D. Nautiyal, and Sudha Singh. 1975. The cuticle, epidermis, and stomatal ontogeny of Casuarina equisetifolia Forst. Ann. Bot 39:1117-1123.

Partington, W. M., Jr. 1972. Biological Pollution. ENFO Newsletter, Enviro. Info. Center of the Fla. Conserv. Found., Inc. Winter Park, Fla.

Tales and trials of the release of exotic species.

Poe, S. L. and J. A. Reinert. 1980. Arthropods associated with tropical urban landscape plants. XI. Australian pine, Casuarina equisetifolia L. Proceedings of Southern Nurserymen's Ass'n. Research Conf. 1980, Nashville, Tenn. p. 131132.

Poole, R. T., and C. A. Conover. 1980. Melaleuca bark and solite as potential potting ingredients for foliage plants. Proceedings of the Fla. St. Hort. Soc. 92. 3 p. Fl. Univ. Apopka, Fla. 32703.

Poulson, G. 1979. Making something out of nothing - and more than that. Sylva Africana No. 6. 3 p.

A natural forest ecosystem is established by planting N_2-fixing spp. including Casuarina equisetifolia on land mined by the Bamburi Portland Cement Co. in Mombasa, Kenya.

Pritchard, P. C. H. 1976. Melaleuca. The Florida Naturalist 49(6):7-11.

Purdy, K. R., L. W. Elston, D. R. Hurst, and J. A. Knight. 1978. Pyrolysis of Eucalyptus grandis and Melaleuca whole-tree chips. Eng. Exp. Stn. Final Rep. Project A-2148, Ga. Inst. Tech., Atlanta.

Rao, A. N. 1972. Anatomical studies on succulent cladodes in Casuarina equisetifolia L. Proc. of the Indian Acad. of Sci. B. 76(6):262-270.

Describes and illustrates the fleshy cladodes and shoot apices on coastal trees and compares them with normal non-succulent structures, characteristic of inland trees.

Ratnasabapathy, M. 1974. Acacia auriculaeformis and Casuarina equisetifolia--the urban invaders. Malayan Nature Journal 28(1):18-21.

Notes on the ecology, propagation, and pests (few) of two popular street trees, also the dominant trees in pioneer vegetation on disturbed sites.

Ray, M. P. 1971. Plantations of Casuarina equisetifolia in the Midnapore district, West Bengal. Indian Forest. 97(8):443-457.

Resource Management Staff. 1976. Hole-in-the-Donut Farmland Research and Management Program, Summary 1972-1976. National Park Service, Everglades National Park, Homestead, Fla. Mimeo. 51 p.

Rhoads, A. S. 1952. The destructiveness of Clitocybe root rot to plantings of Casuarinas in Florida. Lloydia 15:161-184.

Rhoads, A. S. 1956. The occurrence and destructiveness of Clitocybe root rot of woody plants in Florida. Lloydia 19(4):193-240.

Riopelle, L. A. 1978. Melaleuca control at Corkscrew Sanctuary. Ecosystem Res. Unit, Nat. Audubon Soc., Naples, Fla. Mimeo. Report. 11 p.

Melaleuca naturalizing in undisturbed habitat is being controlled. 2,4-D at 100% concentration was consistently effective. Effects of 2,4-D on native vegetation were monitored. Control operations are conducted after the rainy season to inhibit seedlings and reduce the spread of 2,4-D.

Robertson, W. B., Jr. 1953. A survey of the effects of fire in Everglades National Park. National Park Service, Homestead, Fla. 169 p.

Robertson, W. B., Jr. 1955. An analysis of the breeding-bird populations of tropical Florida in relation to the vegetation. Unpublished Doctoral Dissertation, University of Illinois, Champaign-Urbana. 599 p.

Robertson, W. B., Jr. 1956. Casuarina in Everglades National Park. A report to Chief Ranger Campbell. Everglades National Park, Homestead, Fla. 3 p.

Report on the distribution and ecology of 2 Casuarina species in Everglades National Park. Recommendations are made for control experiments.

Robinson, F. A. 1980. Relationship of Melaleuca to Beekeeping. Proc. of Melaleuca Symp., Fla. Div. of For. 2 p.

Overview of beekeeping in Florida, stressing the importance of Melaleuca as a source of nectar and pollen during the part of the year when other species are not available. It is estimated that the bee population of Florida would be reduced by about 1/3 if Melaleuca were removed.

Rodriguez Perez, M. 1973. Determining the calorific value of Eucalyptus saligna, Casuarina equisetifolia, Jambosa vulgaris (Eugenia jambas) and Buchenavia capitata. Baracoa 3(1/2):45-49.

The results of experiments with a bomb calorimeter and an adiabatic calorimeter. Mean value for Casuarina equisetifolia was 4127 cal/g.

Roy-Noel, J. and C. Wane. 1977. Attacks on trees by termites in the Cap Vert Peninusla (Senegal). I. The case of the reforestation of mobile dunes at Malika. Bull. de l'Institut Fondamental d'Afrique Noire 39(1):124-141.

A list of 6 species of termites found in Casuarina equisetifolia is given with notes on the damage caused.

Saleh, N. A. M., and M. H. El-Lakany. 1979. A quantitative variation in the flavonoids and phenolics of some Casuarina species. Biochemical Systematics and Ecology 7:13-15.

The flavonoids and phenolics of four Casuarina species were studied. Fourteen glycosides of kaempferol and quercetin, cupressuflavone, condensed and hydrolysable tannins were identified. The results indicate that C. cunninghamiana, C. glauca and C. stricta are closely related while C. equisetifolia differs mainly quantitatively from the other three.

Santra, S., and B. Nandi. 1975. Chemical environments for growth of three strains of Fomes durissimus: nutritional requirements of carbon, nitrogen and growth hormones for hyphal growth. Indian Phytopathology 28(3):366-371.

Best growth of 3 isolates from mahogany, Casuarina equisetifolia and Mimusops elengi was determined.

Santra, S., and B. Nandi. 1975. Decomposition of lignin and cellulose components of wood of Swietenia mahagoni, Casuarina equisetifolia and Mimusops elengi by Fomes durissimus. Lloyd. Holzforschung 29(6):205-207.

Results show that the fungus is a white rot type and primarily uses lignin.

Santra, S., and B. Nandi. 1975. Microstructural and microchemical studies of wood decay of Casuarina equisetifolia by Fomes durissimus. Transactions of the British Mycological Society 65(3):507-509.

Describes, with photos, changes in the distribution of mycelium and the contents of lignin and cellulose during decay of C. equisetifolia by F. durissimus.

Schortemeyer, J. L., R. E. Johnson, and J. D. West. 1980. A preliminary report on wildlife occurrence in Melaleuca heads in Everglades Wildlife Management Area. Proc. of Melaleuca Symp., Fla. Div. of For. 10 p.

Documents wildlife utilization occurring in 12 isolated Melaleuca heads in the Everglades, primarily by birds. Forage quality of sprig samples of Melaleuca was examined and it was found to be poor as a potential food for deer.

Schory, E. A. 1958. The cajeput tree in Florida. Carib. Forester. 19:50-55.

Schroeder, P. B., and J. A. Browder. 1979. Seed dispersal of Melaleuca quinquenervia: a stochastic simulation model. Final report to USDA For. Ser., Southeast For. Exp. Stn., Lehigh Acres, Fla., under Research Agreement No. 18-724. 14 p.

Schroeder, P. B., and J. A. Browder. 1980. A microcomputer stochastic simulation model of seed dispersion of Melaleuca quinquenervia. p. 27-44 in V. P. Boyd, R. G. Cumings, C. Hammer, and W. Malamphy (eds.). Proc. 13th Annual Simulation Symp., March 19-21, 1980. Tampa, Fla. Sponsored by ACM, IEEE, and SCS. Available from: Annual Simulation Symposium, P.O. Box 22621, Tampa, Fla. 33622.

Sena Gomes, A. R., and T. T. Kozlowski. 1980. Responses of Melaleuca quinquenervia seedlings to flooding. Physiol. Plant. 49:373-377.

Shafiq, Y., A. M. A. Dahab, and F. Omran. 1974. Effects of light intensity on the growth of seedlings of Pinus brutia, Cupressus sempervirens, and Casuarina equisetifolia. Mesopotamia J. of Agric. 9(1/2):73-85.

For Casuarina, plant height was unaffected by shading, but weight was greatest at 100% light.

Shafiq, Y., A. M. Abou Dahab, and J. A. Al-Ashoo. 1978. Effects of different transplanting media on growth of Eucalyptus camaldulensis Dehn, Pinus brutia, Ten., and Casuarina equisetifolia Forst. transplants. Mesopotamia J. Agric. 13(2):167-178.

Sheir, H. M., and A. M. Tarabeih. 1977. New record of leaf spot of Schinus terebinthifolius Raddi in Egypt. Egyptian Journal of Phytopathology 9:73-74.

Singh, S. P. 1978. Rotation as influenced by stand stocking: a study of Casuarina equisetifolia. Indian Forester 104(7). 10 p.

Regression analysis was applied to data from sample plots of Casuarina equisetifolia to determine the optimum stocking density. Height growth is rapid during the first 7 years, then declines. Vol. growth is max. at about 20 years. The tree lives only 40-50 years. A 7-year rotation is suggested.

Smiley, N. 1949. "Flood-proof" trees and shrubs help low-lying gardens survive. Miami Herald. Feb. 27, 1949.

Smith, W. H., and L. F. Conde. 1979. Energy and chemicals from woody species in Florida (Pinus, Casuarina, Eucalyptus, Melaleuca). Conf. Proc., Nat. Biomass Program, Colorado Sch. of Mines. Available from Nat. Tech. Info. Service, Springfield, Va. p. 375-379.

Stocker, G. C. 1976. Report on cyclone damage to natural vegetation in the Darwin area after cyclone Tracy, Dec. 25, 1974. Leaflet, Forestry and Timber Bureau, Australia, No. 127. 39 p.

Types of damage are defined and described for tall, open, forest; monsoon forest; Melaleuca forest; and woodland, dune woodland, and mangrove. Resistance to wind and ability to recover are noted.

Stocker, R. K., and D. R. Sanders, Sr. 1980. Chemical control of Melaleuca quinquenervia. Proc. of Melaleuca Symp. Fla. Div. of For. 6 p.

Several herbicides were tested on mature Melaleuca trees and seedlings. Spike and Velpar were effective as foliar and pelletized applications to mature trees, and several were effective on seedlings.

Stocker, R. K., and D. R. Sanders, Sr. 1980. Melaleuca control studies in southern Florida. Proc. of the 33rd Annual Meeting of the Southern Weed Science Society.

Initial results of tests show that Hyvar X, Spike and Velpar at 2 to 4 lbs active ingredient/acre provide rapid and effective control.

Swain, E. H. F. 1928. The timbers and forest products of Queensland. Queensland For. Serv. 500 p.

Swamy, B. G. L. 1944. A preliminary note on the embryology of Casuarina equisetifolia. Forst. Indian Aca. of Sci. 20(Sec. B):187-191.

Descriptions and illustrations.

Swamy, B. G. L. 1948. A contribution to the life history of Casuarina. Proc. American Acad. Arts and Sciences 77(1).

Swart, H. J. 1972. Australian leaf-inhabiting fungi. III. Observations on Harknessia. Trans. Br. Mycol. Soc. 59(2):309-311.

Describes H. renispora sp. nov., from leaves of two species of Melaleuca.

Swart, H. J. 1979. Australian leaf inhabiting fungi X. Seimatosporium species on Callistemon, Melaleuca, and Leptospermum. Trans. Br. Mycol. Soc. 73(2):213-221.

Seimatosporium dilophosporum, S. kriegerianum, S. elegans sp. nov. and S. leptospermi are presented as a natural group of closely related species. Perfect states for these species have been found and Discostromopsis gen. nov. is described to accomodate them.

Sweet, H. C. 1981. Use of an Apple computer to identify vegetation and assess the coverage within single LANDSAT pixels. p. 695-701 in Proc. of the 7th International Symposium on Machine Processing of Remotely Sensed data. Purdue Univ., West Lafayette, Indiana (reprints available from author: Bio. Sci. Dept., Univ. of Central Fla., P.O. Box 25000, Orlando, FL 32816).

This test was applied to Melaleuca. Results indicate that the technique may permit small-scale assessment of its spread.

Thomas, M. C. 1977. New host records and behavioral observations on Florida Cerambycidae. Coleopterists Bulletin 31(1). 4 p.

Stenadontes dasystomus dasystomus, a cerambycid that attacks broad-leaved trees is recorded on Casuarina equisetifolia.

Thomas, R. J., and R. C. Gilmore. 1962. The machining characteristics of Casuarina glauca, Casuarina equisetifolia, and Melaleuca leucadendron. Tech. Report No. 16. Dept. of Wood Sci. and Tech., Sch. of For., N.C. State Univ., Raleigh, N.C. 21 p.

Tomlinson, P. B. 1980. The Biology of Trees Native to Tropical Florida. Harvard University Printing Office, Allston, Mass. 480 p.

Illustrations, ranges, and keys to native species and selected exotics.

Toner, M. 1975. Melaleuca trees choke area's life. Miami Herald, June 25, 1975.

Brief view of "problems" caused by Melaleuca including swamp drainage, allergies, and unsuitable habitat for wildlife. Efforts at control are discussed.

Toops, C. 1979. Invaders of the Everglades (Schinus terebinthifolius, Melaleuca leucadendron, Casuarina equisetifolia, exotic weeds). Am. Forests 85(8):38-41, 50-54.

Treub, M. 1891. Sur les casuarinées et leur place dans le Système Naturel. Ann. Jard. Buitenzorg 10:145-231.

Tschesche, R., R. Geipel, and H. W. Fehlbaber. 1970. The isolation of O-methyldauricine from Colubrina asiatica. Phytochemistry 9(7):1683-1685 (in German).

Tyson, J. H., and W. S. Silver. 1979. Relationship of ultrastructure to acetylene reduction (N_2 fixation) in root nodules of Casuarina. Bot. Gaz. 140 (Suppl.):544-548.

This study determined the optimal conditions for N_2 fixation by Casuarina equisetifolia and Casuarina cunninghamiana. Structural studies using scanning EM were also conducted.

Uzzell, F. H. 1976. Economic value of the Melaleuca to beekeepers. Statement at Conf. on Exotic Plant Species, Sept. 11, 1976. Ft. Lauderdale, Fla. 1 p.

Vadav, J. S. P., and S. P. Banerjee. 1977. Soil characteristics of coastal alluvium supporting Casuarina equisetifolia in Maharashtra and Gujarat. Fertilizer Tech. 14(3):208-213.

Viggiani, G. and M. Hayat. 1974. New Trichogrammatids from India (Hymenoptera: Chakidoidea). Bollettina del Laboratorio di Entomologia Agraria 'Filippo Silvestri.', Portici 31:145-151.

Four Trichogrammatids are described from adults as new from India. Included is Mirufens mangiferae sp. n., parasitising Nipaecoccus sp. on Casuarina equisetifolia.

Vines, R. G. 1968. Heat transfer through bark, and the resistance of trees to fire. Aust. J. Bot. 16:499-514.

Wade, D. D. 1980. Some Melaleuca-fire relationships, including recommendations for homesite protection. Proc. of Melaleuca Symp., Fla. Div. of For. 8 pp.

Discusses fire adaptations of Melaleuca that enhance the survival of established trees, promote reproduction and reduce competition from less fire-resistant species, and advocates a combination of fire and herbicides to retard the spread of Melaleuca. Gives recommendations to reduce the potential of destructive crown fires around homesites.

Wade, D., J. Ewel, and R. Hofstetter. 1980. Fire in South Florida Ecosystems. USDA, Forest Service General Technical Report SE-17. Southeastern For. Exp. Stn., Asheville, N. C. 125 p.

A brief history of fire in south Florida, along with some associated damages and benefits. Available information about fire effects is presented for each of the major vegetative types in south Florida, and fire's relationship with certain exotic species is discussed.

Wagner, H., O. Seligmann, H. P. Horhammer, V. M. Chari, and J. F. Morton. 1976. Melanervin aus Melaleuca quinquenervia, ein Flavanon mit Triphenylmethanstruktur. Tetrahedron Letters 17:1341-1344 (in German).

Wang, S. C., J. B. Huffman, and R. C. Littell. 1981. Characterization of Melaleuca biomass as a fuel for direct combustion (Melaleuca quinquenervia). Wood Science 13(4):216-219.

Selected properties (heat of combustion, density, green moisture content, and rate of moisture reduction) of Melaleuca biomass were determined to evaluate its quality as a biomass fuel.

Ward, D. B. 1977. Florida Flora Newsletter #22, Univ. of Fla., Gainesville.

Contains notes regarding the nomenclature history of Casuarina, and proposes that more proof is needed before C. equisetifolia becomes C. litorea.

Wilks, K. 1953. Paper bark as a source of cork. Div. of Wood Tech., For. Comm. of New South Wales. Technical Notes 6 (1 and 2):10-11.

Wodehouse, A. 1972. Casuarina in Everglades National Park. Report from a Volunteer-in-the-Parks. Everglades National Park, Homestead, Fla.

A synopsis of history, distribution and control methods for Casuarina in Everglades National Park.

Woodall, S. L. 1978. Melaleuca in Florida: A progress report on research by the U.S. For. Ser., Forest Resources Lab. Lehigh Acres, Fla. (unpublished).

Potential range extensions, growth rates, and invasion prediction are discussed.

Woodall, S. L. 1979. Physiology of Schinus. p. 23-42 in Schinus. Tech. Proc. of Techniques for control of Schinus in South Florida: a workshop for area managers. The Sanibel-Captiva Conservation Foundation, Inc., Sanibel, Fla.

Woodall, S. L. 1979. Results of several herbicide screening tests on Schinus. p. 63-75 in Schinus. Tech. Proc. of Techniques for control of Schinus in South Florida: a workshop for area managers. The Sanibel-Captiva Conservation Foundation, Inc., Sanibel, Fla.

Preliminary trials to test the effectiveness of control methods and herbicides. Herbicides used include: Silvex, Banvel, Ammate, Karmex, Round-up, Tordon 101R, Hyvor X-L, and Velpar. Methods include stump cutting, soil treatments, foliar sprays, stem injection, soil and seedling sprays.

Woodall, S. L. 1979. Suggestions for the identification of Casuarina species in Florida. Unpublished draft on file at Forest Resources Lab, P.O. Box 938 Lehigh Acres, Fla. 33936. 12 p, 17 figures.

Woodall, S. L. 1980. Site requirements for Melaleuca seedling establishment. Proc. of Melaleuca Symp., Fla. Div. of For. 6 p.

A review of Melaleuca seedling response to environmental variables. Melaleuca's tolerance of a wide range of moisture and fertilizer conditions makes the majority of land area in south Florida vulnerable to invasion.

Woodall, S. L. 1980. Integrated methods for Melaleuca control. Proc. of Melaleuca Symp., Fla. Div. of For. 6 p.

Paper emphasizes slowing Melaleuca's rate of spread by eliminating outlying trees as seed sources. Also discusses potential for returning a mature stand of Melaleuca to natural vegetation.

Woodall, S. L. 1980. Evapotraspiration and Melaleuca. Proc. of Melaleuca Symp., Fla. Div. of For. 8 p.

A discussion of the difficulty of obtaining good evapotranspiration values for complex vegetation systems. Predicts an increase in the area covered by Melaleuca forest, leading to an increased demand on the ground water supply.

Woodall, S. L. 1981. Groundwater use and crown interception by Melaleuca stands in south Florida (a study plan on file at Forest Resources Lab, P.O. Box 938, Lehigh Acres, Fla. 33936). mimeo. 13 p.

Woodall, S. L. 1982. Greenhouse screening trials of eight herbicides for seedling control of Melaleuca and Brazilian-pepper. Research note SE-314. USDA, U.S. For. Ser., Southeast For. Exp. Stn., Asheville, N.C. 4 p.

Seedlings were treated with 8 herbicides at 2 concentrations. Root-absorbed herbicides were more effective than foliar-absorbed. Herbicides with little residual activity were ineffective.

Woodall, S. L. 1982. Herbicide tests for Brazilian-pepper control in Florida. Research Note SE-313. USDA, U.S. For. Ser., Southeast For. Exp. Stn., Asheville, N.C. 5 p. (in press).

Six herbicides and 5 application techniques were tested. Basal spot treatments with bromacil and hexazinone gave good control. Stem injections, stump treatments, foliar and ground sprays were also tried.

Woodall, S. L. 1982. Seed dispersal in Melaleuca quinquenervia. Fla. Scientist 45(2):81-93.

Most viable Melaleuca seed was found to be aerodynamically "heavy." Under normal wind regimes, numbers adequate for dense regeneration are not carried more than a distance of 15 x the height of the source. Though most seeds are retained until the death of the tree (resulting in a massive seed fall lasting up to 3 months) significant numbers are released year-round due to the death of (usually lower) twigs and branches.

Woodall, S. L. 1982. Establishment of Melaleuca quinquenervia seedlings in the pine-cypress ecotone of southwest Florida. Fla. Scientist (in press).

Woods, C. 1977. Melaleuca: valuable new wood source? Sunshine State Agric. Res. Rep. 22(1/2):8-9.

Workman, R. W. 1979. History of Schinus in Florida. p. 5-6 in Schinus. Tech. Proc. of Techniques for control of Schinus in South Florida: a workshop for area managers. The Sanibel-Captiva Conservation Foundation, Inc., Sanibel, Fla.

Brief overview of the introduction of Schinus to south Florida and its impacts on humans and wildlife.

WSSA. 1979. Herbicide Handbook of the Weed Science Society of America. Fourth ed. Champaign, Illinois. 479 pp.

Ying, S. L., C. Y. Chien, and R. W. Davidson. 1976. Root rot of Acacia confusa. Quarterly Journal of Chinese Forestry 9(1). 5 p.

Ganoderma lucidum, a root fungus, could also kill Casuarina equisetifolia.