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MODERN HORTICULTURISTS

LEON W. MILLER
A. Duda & Sons, Inc.,
Production Research Manager,
P. O. Box 257, Oviedo, FL 32765

Abstract. **Historians tell us about the past, economists tell us about the future, thus only the present is confusing. From the creation until today, man has had some problems we can all agree. Feast and famine have been the order of the day. MAN has survived! The future will be what we will make it (good or bad). What we have today may have been a dream but it is nice or so we think. As Americans we hold some things very dearly; the freedoms, the right of ownership, the freedom of movement and other cherished guarantees given us by our Constitution with its Amendments, which is now two-hundred years old. In the past fourteen years these cherished rights have begun to erode in our society and as a consequence we are giving into more government controlled society. Some say this is good for "the public interest".**

For your information, I would like to discuss what faces us here in Florida in the light of the proposed rules and regulations that have come out of our Federal government and our State governments from 1968 until the summer of 1977.

As agriculturists, the producers of food and fiber, from the beginning of this country until probably the mid-sixties we were operating almost in a free society with very few rules and regulations. We must have done a good job of producing our requirements for ourselves and helping some of our neighbors for food and fiber requirements.

In the mid-sixties the Federal government passed 2 laws, the Clean Water Act and the Clean Air Act of 1968, which brought on to the scene a change in the way that horticulturists would have to get things accomplished today and in the future.

In 1972 the Florida Legislature passed the Florida Water Resources Act, the Florida State Planning Act, the Legislature in 1975 passed the Local Government Planning Act, which in some respect creates an uncomfortable feeling to the agricultural segment of our business communities.

Out of the Federal laws passed in 1968 came the organization of EPA (Environmental Protection Agency), the new Health and Welfare Education Department through its Occupational Safety and Health Administration (OSHA) with all of its rules and regulations in essence controls about all the actions that the horticulturist uses in order to accomplish his mission. Agriculture, just being one segment of American business, is feeling the pinch of the ability to make a profit the same as any other segment of our economy.

The hidden costs of regulation have just about reached the breaking point in determining where an organization will be able to make a profit or not from their operation. Some of the leading economists in the country have estimated that the steel industry alone will be spending well over one billion dollars annually on pollution control measures alone. This expenditure amounts to over one-quarter of the industry's total annual capital investment.

Meeting EPA's 1983 Water Pollution Standards will cost all American industries over the next 6 years, approximately 60 billion for capital equipment and another 12 billion annually for operating and maintenance costs.

Meeting Noise Pollution Standards as mandated by Congress and enforced by the Occupational Safety and Health Administration will involve expenditures of over fifteen billion in capital costs and two to three billion of operational costs annually over the next six years. If these levels of noise standards are raised to the recommended levels recently established by OSHA, and endorsed by EPA, the capital cost could well climb over thirty billion dollars. Where all of this money is coming from is anyone's guess, but it will definitely have to either come from profits of the organizations or from borrowed capital, and ultimately from the consumer.

The above statements are the best estimates that could be determined by studies made in this area by private and governmental agencies.

After the inroads made by the Federal laws as mentioned above, the most frightening act which Congress has not passed to-date is the Land Use Act. As you well know this act was not passed in the last Congress and is very unlikely that it will be passed in this Congress, but from all of the information, it may be passed in some future Congress.

"Control the land and the government can control its people." We may have to see our Congressional people change part of our Constitution before the Land Use Bill is passed as is now written. An example of the above, the right to own property should not include the right to develop it.

"Tough government restrictions should be placed on private land without compensating land owners." "Growth should be regulated by government rather than by the market system." These are some of the ideas that have been making inroads into our government over the last few years.

The State of Florida passed a Water Resources Act in 1972 establishing our 5 Water Management Districts in the State as outlined by Chapter 373 of Florida Statutes. This act spells out the responsibility of the Water Control Districts, who will run them and the operational rules of each Water Management District.

The advent of Chapter 373, the Department of Environmental Regulations (DER), started writing the rules and regulations for the pollution of Florida waters known as proposed revisions for Chapter 17-3 under the above act. These rules and regulations classify all of the waters in the State of Florida. Example: Class I waters is for public water supply, Class II waters for shellfish harvesting, Class III waters is for recreation, propagation and management of fiish and wildlife, Class IV is for agricultural and industrial water supply, Class V waters is for navigation, utility and industrial use and Class VI waters are all underground waters. These rules and regulations have not been finalized as of this date. They are now in the process of writing them for the ninth time. In studying these rules and regulations, it is the opinion of the best legal minds of the State that the only way we can operate under the rules and regulations as they are now drafted will be to go to a zero-discharge on all agriculture and forestry lands. This will absolutely take agriculture in all forms, out of the picture. Their criteria for the water quality standards are so strict that 2 elements in most cases, as now established, would make us go to a zero-discharge situation on all cattle, vegetable, citrus, general farming and forestry operations in the State.

The Florida Legislature passed the Florida State Comprehensive Planning Act in 1972 and in 1975 passed the Local Government Planning Act. The Florida State Planning Act of 1972 set up a procedure for the comprehensive

planning for environmental betterment of the State. Some of us who have worked with the water element are not at all satisfied with that element that is now written.

It is also true that most of the people who worked on the agriculture element under the Comprehensive State Plan are not at all satisfied with it. There are several points of contention in both elements that may need to be looked into before any decision on adoption is made and put in effect.

We know from the experience that we have incurred in the last 10 years of working with the governments, Federal and State, that the horticulturists of tomorrow have got tremendous problems facing them, mostly brought on by government policy which is more restrictive than the economic policies that we have had to live with in the past. The permits, rules and regulations that we will contend with in the future will create problems that only the best of minds can exist with. We think it behooves all members of this Society to study the government *rules and regulations*, both State and Federal, and add our expertise in the decision making process if we are to be able to feed our society in the future.

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THE SUBTROPICAL VEGETABLE INDUSTRY OF DADE COUNTY

JOHN F. MCGUIRE AND ROY J. CHAMPAGNE
Dade County Cooperative Extension Department, 18710 SW 288th St., Homestead, FL 33030

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Abstract. **The emergence of the subtropical vegetable industry in Dade County has contributed an added dimension to the agricultural industry of the area. From a modest, cottage type industry supplying a decidedly local market to a large rapidly expanding segment of the county's agricultural economy the subtropical vegetable industry has faced, and is facing, problems common to any emerging industry. Acreage has grown from 3200 acres in 1970 to 10,600 acres in 1977 with a corresponding increase in value.**

For better than a half century the mention of Dade County agriculture conjures up visions of vast acres of fresh winter tomatoes, rows of pole beans, sweet corn, mangos, avocados, limes and a host of other vegetables and fruits that are grown in the winter months. These crops are still of major importance to the agricultural economy of Dade County but a new industry is rapidly emerging as a major addition to the total value of agriculture. This addition is the subtropical vegetable industry. While new in terms of Dade County, subtropical vegetables have been grown for centuries in other parts of the world. The subtropical vegetable industry was first given the name Cuban vegetables since the majority of the farmers so engaged were from the Cuban sector of the county's population. In subsequent years the industry was called the Latin vegetable industry to more nearly reflect the fact that these particular vegetables were certainly not exclusively Cuban or even Cuban grown. An expanded title was needed when it was finally realized that the vegetables that are included in the industry grow worldwide in the subtropical regions. Thus by usage the Cuban-Latin vegetable industry has been renamed the subtropical vegetable industry to truly reflect the fact that these crops are grown throughout the subtropical regions of the world.

Perhaps there has alwas been a segment of the population of Dade County that grew subtropical vegetables for home and local use. Certainly there have been families of Latin extraction who have resided in the county and no doubt desired the types of food that they were accustomed to in their native lands. However a major impact was not felt until the late nineteen sixties or early seventies. The first acreage report for subtropical vegetables listed only 3200 acres so it was possible that there had been 1000 acres or more in prior years that were not identified and were widely dispersed throughout the county. This first report, given in the 1970 Dade County agricultural values bulletin, showed only estimated acreages and values. In the estimate for 1976-77 there are 10,600 acres of subtropical vegetables in the county. This is a 231% increase in only 6 years.

Subtropical vegetables is rather a broad, all encompassing term for crops grown in the subtropical latitudes of the world. Specifically in Dade County we have 4 major subtropical vegetable crops with a few potential, though minor species. The major crops are: boniatos, malanga, calabaza and yuca.

Malanga

The malanga (*Xanthosoma caracu* Koch and Bouché) is a member of the Araceae family and according to some researchers (3, 5) gives rise to a great deal of taxonomic problems. For years it was assumed that the malanga in Dade County was *X. sagittifolium* (L) Schott but recent articles (3) indicate that this designation is not correct. For our purposes and to avoid conflict with taxonomists we can consider the malanga on the basis of its use as a root crop without regard to the species conflict. It is important however to consider the genus *Xanthosoma* since there is a similar root crop grown in Dade County that resembles the malanga very closely. This other crop is the dasheen or taro (*Colocasia esculenta* Schott). A comparison of the 2 reveals the difference in leaf structure (2, 3). There is little confusion among the Latin growers regarding these 2 distinct root crops mainly because very little taro is grown in Dade County. Also the dasheen can be grown on lower, wetter soils than malanga and at further extremes of the subtropical zone.

Currently there are 4100 acres of malanga grown in Dade County. The individual units range in size from less than 1 acre to a few plantings of as high as 200 acres in one block. The average acreage per unit would be in the neighborhood of 3-5 acres.

Malanga, also called cocoyam in other parts of the world, (1) has a central corm that is surrounded by smaller tubers called cormels. These cormels are potato-sized and are the parts of the plant used for food. In other areas partial harvesting is done by leaving the plant in the ground and picking individual cormels as they reach the preferred size. In