## Where ecology meets economy<sup>©</sup>

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This paper is designed to be an introduction to a discussion that will take place at this meeting between people involved with natural areas management and conservation and those doing plant propagation, plant breeding-introduction, and nursery stock production. Various papers will be presented after this one, all providing information and research results as food for the discussion.

The issue of invasive plant species has become a prominent one in the last 15 years. Invasive plants are causing destruction of natural ecosystems in many unmanaged land tracts. The amount of money spent by natural areas managers to control invasives has become a major part of their budgets. Many but not all of the plant species which have been identified as invasive originated from the ornamental plant industry. Because the industry has been a major incubator of new invasive plant species, most efforts to control the expansion of more invasive plant species have been centered on preventing new ones from entering from the industry. Many states have enacted regulations to control the sale and possession of various invasive species, while some others have instituted voluntary invasive plant control measures in cooperation with their green industries. Some states have little to nothing formally in place to deal with the problem. Federal regulations of invasive plants presently in the country are minimal at this time.

The issue has strained relations between some in both the natural areas community and the green industry. It is not uncommon to find land managers that resent the nursery industry because they see it as the source of their biggest problem. I know of numerous nursery people who have voiced their concerns about the government regulating their plant inventories. Another common complaint from both land managers and nursery people is that they want sound science to determine what should be regulated and what shouldn't.

My stance on this as a plant propagator and plant breeder-introducer as well as a producer of local ecotype native plants is smack-dab in the middle! It is a call for cooperation. The industry needs to respect and work with the land manager-conservation community to help them preserve their natural areas so that huge portions of their budgets don't continually get eaten up by invasive species control. And the land manager-conservation community needs to respect and work with the industry so as not to severely impact the businesses that are a major conduit for connecting the general public to plants and the natural world.

To me the single most important aspect of this discussion is the concept of connection. By this I mean the connection of the human population to the natural world. I believe this to be the most important thing that all of us do, conservationists, land managers, plant propagators, plant breeders, and nursery people alike. We affect the future of our world by influencing people with our plants and the environments we create and, or maintain. We provide or protect much of the beauty and magnificence that the natural world has to offer. We introduce many people to the art of growing plants and the intricacies of ecology. We are all in this together and need to appreciate that fact. We are all connected both ecologically and economically.

I think the respect aspect between the various parties is critical to making progress on the invasive plants issue. I am amazed at the knowledge I have come to appreciate from being involved with land manager-conservation people over the past 15 years. I find the use of fire as a management tool fascinating! It can save a lot of time and be very effective in controlling troublesome species both native and non-native. Many land managers know chemical control methods for some extremely difficult to control plant species such as Japanese knot weed and reed canary grass. If green industry were to work more with land

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managers, surely much could be learned to benefit their businesses.

The reverse is true as well. Nursery people can produce and grow plants like no one else. Land managers and people involved with ecological restoration can learn much by collaborating with nursery growers and propagators. Growing plants can be invaluable to understanding plant behavior in various environments. There is much to be learned by the conservation-land manager community from the nursery industry.

One of the most interesting aspects of my work is the knowledge I gain from observing plants in the wild in areas typically taken care of by hard working land managers. I learn how plants in the wild behave in particular soils and with other organisms in their environment. It is very useful to be able to see various ecotypes of plant material in their native habitat and observe their differences. It has been important to me in developing regionally adapted seed strains and cultivars for use in traditional landscaping. I value the natural areas with the same fervor that I do IPPS, libraries, and my old college professors. All are incredible sources of useful knowledge that I utilize to make a living.

As the presentations proceed today on the various subjects of invasive species regulation, sterile cultivars and their testing, conservation of endangered species, and production of native plants, I hope everyone will consider how they can help the cause of connecting people to the natural world so we can all continue to make a living at it and future generations will also. Ecology and economy can never truly be separated. We have to all work together.

Ecology—Economy

By Michael Yanny--2012

Ecology—Economy

It's a two letter difference in language and life

Economy—Ecology Ecology—Economy

Ecology is economical, Survival of the fittest Economy is ecological Work together or go broke.

Ecology—Economy Economy—Ecology

The economy of the world requires humans to work together through trade of goods and services. Without the goods and services the economy crumbles.

The ecology of the world requires goods and services be provided by the various biological components of the system. Without the goods and services the ecology crumbles.

Economy—Ecology Ecology—Economy

Ecologists must understand economics. It's a part of their science, just like physiology and taxonomy. Economists need to feel the natural world or they will break it.

Ecology—Economy Economy—Ecology

Ecologists are human.

So are Economists. They have a common life form and an interest in a better life. That's good!!!

Economy—Ecology Ecology—Economy

Life is rich

With quarters and pine cones, nickels and acorns, flowers and dollars. There is no reason not to work together for the common good of living well.

Ecology—Economy Economy—Ecology

It's only a two letter difference in language and life

Ecology—Economy