

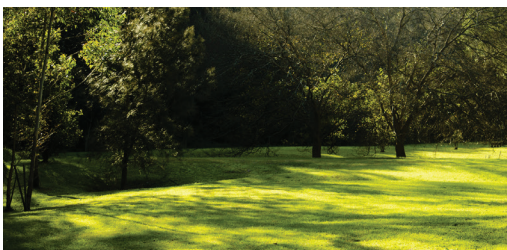
# Cornell Cooperative Extension Annual Agriculture and Food Systems In-Service Day One Highlights

from Lyn Chimera

Carol Ann Harlos and I attended the first day of the 3 day Agriculture Staff In-Service at Cornell Nov. 1<sup>st</sup>. Did you know there are 45,000 volunteers associated with Cornell in NYS? Two thousand of these are Master Gardeners!

We each attended three sessions related to Horticulture s. Frank Rossi, Associate Professor and Extension Turfgrass Specialist, spoke on reducing turf. He made the following points:

- Lawns are the most input intensive segment of gardening.
- The area of turf in the US rivals that of irrigated corn.
- 5.7 BILLION dollars are spent each year on lawn pesticides and fertilizers.
- Erie County has one of the highest pesticide use rates in the state, higher than agricultural counties.
- Fertilizers and pesticides are not necessary for a healthy lawn.
- His first rule for a healthy lawn is “Do no harm” to the environment.
- He has never seen a lawn die from drought. Lawn irrigation is not necessary once the lawn is established.
- We need our landscapes to function for us, not just look pretty.
- Nitrogen is 300% more harmful to global warming than carbon.
- Tall Fescue works best as a mow only, low maintenance lawn. 🍷



from Carol Ann Harlos

“Forecasting Invasive Species with Climate Change” defined an invasive species as “an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health”. Records indicate a 5 degree higher average temperature for the month of July. Winter temperatures range between 2.5 and 5 degrees higher. Precipitation is variable over all states and at present does not show a changing trend. The new science of biogeography tries to predict current invasive species in unsampled areas. One goal is to identify areas of greatest risk based on the distribution of known invasive species.

At present 1050 exotic terrestrial plant species are listed as noxious in the continental United States. One of the most interesting points to me is that predictions for the future are based on the occurrence of a given species not the numbers of that species. This can make predicting the future rather tenuous. At the same time a correlation has been noted between temperature change and species change.

Each state has its own watch list for invasive plant species. For example Heavenly Bamboo *Nandina domestica* is an invasive in warmer states where its excessive growth has proven toxic to some bird species. It is not a problem in northern states. There are several models for climate change. They cannot however predict occurrence of plants in the future.

Comment was made regarding the successful attributes of invasive species. Successful invasives on average tend to be the first to leaf out and the last to die off in the autumn. Have any invasive species ultimately failed? The answer: Garlic mustard decreases have been noted in some areas.

Doug Tallamy presented “Are Alien Plants Bad?” Exotic, introduced species are “good” or “bad” which are relative terms. Dr. Tallamy gave examples of relationships that have been affected by invasive species. Novel ecosystems have developed over time. There is not an evolutionary history as change takes place so very rapidly, since 90% of insects are plant specialists changes in available plants can have profound effects. (Example: decrease in monarch butterflies linked to loss of milkweed). Tallamy’s explanation for the decrease in songbirds is that 96% of birds rear their young on native insects! The number of caterpillars needed to reproduce a given bird is between 390 and 570 caterpillars.

I am certainly looking forward to hearing Tallamy speak again! 🍷



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