

# STRATEGIES

# for Early Detection, Reporting, and Monitoring of Invasive Plants

By Larry Fowler

Invasive plants are a serious problem in the United States, causing billions of dollars of damage to agricultural, managed, and natural ecosystems. In 1994, it was estimated that the economic impact of weeds, the cost to us all for food and fiber, was about \$20 billion per year. On our public lands alone, it has been estimated that we are losing 4,000 to 5,000 acres per day due to the incursion of invasive species. Collection of interception data at our ports of entry indicate that we are preventing entry to only 5 to 30 percent of all pests. Current efforts to correct this situation include recent introduction of the Plant Protection Act to grant our Secretary increased authority and an intensified search for new technologies to enhance our detection and mitigative capabilities.

The Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW) is a consortium of 16 federal agencies. The National Strategy for Invasive Plant Management (NSIPM) is the document developed by this group to address invasive plants within the United States. Early detection, reporting, and monitoring are critical components of NSIPM.

The following is a mission statement and associated activities formulated by a group of individuals interested in forming a North Carolina chapter of the Southeast Exotic Pest Plant Council (SE-EPPC). Its structure is similar to the FICMNEW strategy and provides an excellent forum for creating partnerships.

**Mission.** To provide a network within the state for protecting the sustainability and biodiversity of managed and natural ecosystems. This mission is to be accomplished by the following:

- Establish a network to provide early detection of incipient occurrences
- Respond to invasive plants
- Rehabilitate infested sites, when appropriate

The mission statement will be accomplished when the following activities are effected:

1. **Educate and Motivate.** The initial step in the formation of a network involves the education and motivation of individuals to participate in the process. Any individual who has the capacity to identify plants is potentially valuable to the process.
2. **Survey.** Educated and motivated individuals will survey within their area of the state. Idealistically, all counties of the state would be surveyed for new invasive plants on a regular basis.
3. **Submit.** Specimens will be submitted for final identification to an accredited botanist within the network. For alleged infestations not accompanied by a specimen, an on-line report will provide information to allow collection and processing at a later date.
4. **Identify.** Submitted specimens will be identified by an accredited source.
5. **Evaluate.** The identified specimen will then be evaluated. This process is sometimes referred to as a risk assessment. The purpose of assessment is to determine if specimen is invasive. If not, the process stops.
6. **Record.** Pertinent information regarding invasive specimens will be recorded and idealistically, stored electronically in a database with interactive on-line capability.
7. **Accession.** As a minimum, all new state and county finds should be validated by a vouchered specimen, probably housed in an institutional herbarium.
8. **Report.** The information regarding significant accessions will be reported or made available to appropriate agencies. It is this step in the

process that has been lacking. Not uncommonly, regulatory agencies have discovered much later about new infestations. Steps 1 through 8 constitute "early detection".

9. **Regulate.** Information regarding new infestations will be made available to agencies and institutions for appropriate action.
10. **Restore.** To the extent possible, and when appropriate, measures will be taken to restore the original habitat adversely impacted by the infestation.

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