

HOW INVASIVE PLANTS ARE INTRODUCED

Slide 1

The following slides will explain how invasive plants are introduced and how they impact Florida. For more information regarding invasive plants visit the Invasive Plant Atlas of the United States at invasiveplantatlas.org.

Slide 2

There are two basic pathways of introduction: intentional and accidental. Intentional introductions have often been for agricultural or ornamental purposes, as is the case for Cogongrass (*Imperata cylindrical*) and Lantana (*Lantana strigocamara* syn. *Lantana camara*). Once introduced, these species escaped and became established as viable populations.

Accidental introductions are usually the result of contaminated freight or movement of contaminated plants or products. For example, Tropical Soda Apple (TSA [*Solanum viarum*]) is thought to have been accidentally introduced by cattle imported from Brazil carrying undigested tropical soda apple seeds.

Slide 3

Once introduced, how do plants get around? Plants can spread or reproduce either vegetatively, through clippings, rhizomes and tubers, or by viable seeds or spores. There are numerous dispersal mechanisms most commonly through movement by **animals, humans, wind, and water**. Other dispersal mechanisms include **dehiscence**, where seedpods build up pressure and seeds are flung away from the parent plant, and **fire**, where a specific temperature must be reached to allow seed-bearing vessels, such as a pinecones, to open.

Slide 4

When an organism is introduced into a new ecosystem it no longer has natural predators to control its population. Some severe impacts caused by invasive species are in the following:

Invasive species plague our **Natural Resources and the Environment**, and are the second largest threat to biodiversity after habitat loss. Invasive plants disrupt natural communities and ecological processes, and displace native flora and fauna and their communities. Florida plays a key role in new introductions because Florida serves as a point of entry for almost 3/4 of the plants imported into the U.S.

Invasive species affect **Regional and Local Economies**, including, crop and livestock farming, and can greatly impact natural-resource based recreational businesses, such as hiking, boating, fishing, and swimming. Major environmental damages and losses for the United States are estimated at approximately \$137 billion/year. The cost for the control of invasive plants in Florida alone is estimated at approximately \$100 million dollars/year!

While most of the impacts caused by invasive species are to our ecology and economy, invasive species can also have severe impacts on **Human Health**. Approximately half of the poisonous plants in the non-agricultural areas of eastern United States are non-native and many are invasive.