March 2013

# **Cross Pollination**



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On February 13th, John Peter Thompson, an expert on invasive species based in Washington D.C., hosted a webinar on the topic of Kudzu. Kudzu is a made-in -U.S.A horror known as "The Vine That Ate the South", and in July 2009 a patch 110 m (360 ft) wide and 30 m (98 ft) deep was discovered on a bluff above Lake Erie near Leamington, Ontario. Kudzu propagates vegetatively and only rarely from seed but this discovery demonstrates that it indeed happens and that the seed can travel long distances.

Thompson started off his presentation with an attention-grabbing photo: The root of a 5 year-old plant that weighs 60.5 kg (120 lbs) and 2 m (6 feet) long. Kudzu is deep-rooted leguminous vine that grows astoundingly fast. In the right conditions one speci-

## Miracle Plant; Dangerous Beauty; and An Invasive Species

### Meet Kudzu

By: Sandy Gillians

men can grow 30cm (1 ft) a day and up to 30m (90 ft) in one season. One root can send out 30 vines.

Thompson focused on Kudzu's fascinating

history and the cautionary tale of its introduction to North America. It turns out that European invasives did not arrive with individual settlers who were homesick for familiar plants, nor as inadvertent stowaways. The truth is that science was directed by the value system of the 18th century to find new plants that would serve colonists. They believed that North America had a "degenerate ecosystem" and scientists and businessmen (nurseries) collaborated in a transportation pipeline to bring alien species to North America to dominate the natural system. This mind set did not really change until 1974 when the concept of invasion ecology was formed and the U.S. federal government started introducing regulations on noxious weeds. It was not until the 1980s that flags were raised that certain species are harming natural ecosystems. Thompson posits that contemporary attitudes continue to perpetuate the problem.

Kudzu was introduced to the world at the 1873 World's Fair in Vienna. Japan sent six plants and they were a sensation. Already known world-wide as a "Miracle Plant", Kudzu was also fiendishly difficult to germinate and grow. The Philadelphia World's Fair in 1876 staged a coup in being the first to bring it to North America and for the next 25 -30 years nurserymen threw their resources at trying to propagate this potential economic powerhouse of a plant. There was no discussion of the possible impact on the natural environment, of course - the natural environment was still considered something to be tamed.

At first the interest in Kudzu was purely for its ornamental value, but by the 1890s the FDA (Federal Department of Agriculture) became involved in agricultural experimentation and research. They were brought in to help figure out how to make Kudzu grow and keep

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it alive.

In 1902 a Florida nursery operator and former Kodak engineer, Charles Pleas, threw some seed in a spot in a debris pile where nothing else would grow. The Kudzu took off and he discovered that farm animals loved it. He had discovered that Kudzu hates fertile soil; he and his wife devoted their lives to promoting Kudzu for its agricultural and soil-saving value.

### **Events**

Canada Blooms -March 15-24 http:// www.canadablooms.com/

Canadian Master Gardener Conference April 5—7, 2013 at the Deerhurst Resort in Huntsville

http://www.mgoi.ca/MGOI National Conference.php

> Alaskan Cruise September 7-14, 2013 http://www.uaex.edu/imgc2013/default.htm

Philadelphia International Flower Show: March 2 – 10, 2013 By 1919 government researchers confirmed that an acre of Kudzu produced greater yields than alfalfa; it was excellent forage for farm stock, particularly in the acidic soils of the South; it was leguminous, adding nitrogen to the soil, and its deep roots were a useful control for ero-

sion. Kudzu had some drawbacks: Propagating it was still a major problem and railways, who were actively trying to draw farmers out to the prairies to support their shipping business, discovered that Kudzu didn't grow well there. What's more, dairy cows loved it but it turned milk bitter. Around the same time, another grower named David Fairchild spent \$3000 trying to eradicate Kudzu that he had planted around his Washington D.C. home. He was unsuccessful and mentioned it in his writings as a concern.

By 1933 Kudzu seed was no longer difficult to germinate. Thompson's hypothesis is that a North American hybrid had emerged naturally from multiple varieties originating from Pacific Rim Islands and south-east Asia; they had all been planted in trial gardens. At the same time FDA concluded that while Kudzu made great hay its agricultural uses could not be automated - it had to be harvested by hand. They handed the project over to research stations in Georgia.

In the 1930's and 1940's the research stations recommended Kudzu as a solution to rail and road gullies that kept washing out on deforested lands. Aware that Kudzu could become rampant, the theory was that since roads and rail lines abutted farmland, cultivation and the absence of trees would keep Kudzu in check. The Soil Conservation Service



paid southern farmers to plant over one million acres of Kudzu. The truth is that during the Depression and WWII, many thousands of acres were abandoned, and these were mainly the hardscrabble farms with poor soil – the kind that Kudzu thrives on.

In 1952 Kudzu was finally recognized as a problem and the government stopped paying farmers to plant it. In 1974 it was listed as a noxious weed and for the first time subject to regulations, and by 1999 it was the poster child for invasive species.

Thompson concludes that the situation is not all black and white. He says it's too easy to blame everyone in the past for today's problems when solutions available today are being dismissed. For example, an acre of Kudzu produces more ethanol than an acre of corn. However, the ethanol is in the root, so processing is more intricate, and since corn is subsidized it's still cheaper to produce ethanol from corn. Thompson's presentation was a fascinating look at the human mindset that introduced environmental disasters in the past and perpetuates them into the present day.

# 'Where Lilacs Still Bloom' written by Jane Kirkpatrick and published by WaterBrook Press

#### A Book Review - by Doris Calder

Decades old advice which still holds relevance today, a story full of sorrow, joy and determination, plus an added bonus of some horticultural history'Where Lilacs Still Bloom' written by Jane Kirkpatrick is one of those sit-back by the fireplace books.

The story is based on the life of Hulda Klager, a German immigrant with a grade eight education, who was a devoted farm-wife and mother.

A piece of sound advice given to her at a young age by her father is what gave her courage to pursue her dreams when Mother Nature tried to set her back and when local prejudices deemed she should not try and alter any of God's creations.

'Not everyone understands that we are all created to have complicated challenges and dreams. We must honour our longings, then go beyond them whether others support us or not.

' Huldie don't deny the dreams. They're



a gift given to make your life full. Accept them. Reach for them. We are not here just to

endure hard times until we die. We are here to live, to serve, to trust and to create out of our longings', said her father.

Hulda loved lilacs and her dream of a lilac which had numerous petals - (the

norm at the time was a lilac with

four petals) became her true passion, almost obsession.

In 1905, one dew dropped morning, she set out with magnifying glass, a crochet hook, a turkey feather and a child's paintbrush and hybridization began. By 1910 she had created 14 new varieties of lilacs.

Today the Hulda Klager Lilac Gardens is a national historic site in Woodland Washington welcoming thousands of visitors each year.

I will close my recommenda-



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tion of this book by another favourite quote - 'beauty matters....it does. God gives us flowers for a reason. Flowers remind us to put away fear, to stop our rushing and running and worrying about this and that, and for a moment, have a piece of paradise right here on earth.'

Happy reading and happy dreaming!