## The kudzu invasive species, its effects, and ways to manage it

**Environment, Animals** 



Below habitat loss, the invasive plants and animals are identified to as the second significant danger to the biodiversity in Yukon. Yukon refers to the Canadian territory that lies in North America. In other North American leadership, a lot of invasive plants are held accountable for the habitat destruction, the loss of sustenance resources, and lastly the economic damage.

Invasive species are referred to as different non-endemic living things such as animals, plants, fungus or bacteria which also hold contradictory repercussion to their region's environment, social life, the economy, and the overall public wellbeing (National Ocean Services), however not all species that are made known of are invasive. This essay will look at one specific invasive specie that is referred to as Kudzu, with the scientific name Pueraria Montana.

Pueraria Montana is specified as species of plants within the biological group of Fabaceae (The Earth Institute, Columbia University). The specie Kudzu is found during the whole of Asia specifically speaking of Japan and most of its neighboring countries as well as other island countries that are below japan in the pacific oceans. With the Philippines being a prime example so it is safe to say that this particular specie is widely spread out in Asia. The species is also endemic to some countries in the south pacific region like tonga, Fiji, Vanuatu, and containing Australia as well. America was first made known of the vine Kudzu at a Centennial Exposition in Philadelphia in 1876 which was the first world official fair, where the plant was identified to be beneficial to soil erosion and this why the plant is most typically found within South

America varying between north and west from New York to Texas. Kudzu is frequently known as the "plant that ate the south" and "a mile-minute" considering its rapid overtake of other areas and lands. The semi-wood plant Kudzu has unique properties such as their agile growing tendencies and solid root structure which make it quite an engaging appliance for gardeners, farmers and managers of the ecosystem.

There have been investigations and analyzations through different researches to get a wide range of information as to what the actual distinctive uses for Kudzu are. More to the uses other than erosion control are that Kudzu is a factor in the making of baskets or paper as well as a livestock feed. The vine has been recently discovered to contain medical possessions and has been put into effect for battling infections and irritations, along aside other similar conditions (Invasive Species Initiatives, 2016). Some characteristics as to how the plant evolves include growing primarily in the summer season to a foot per day. They then tend to surround trees, houses, and other things found in their environment due to their "structural parasite" characteristics. The Kudzu vine is known as a dominant plant that outshines other plants due to its receptiveness to both the drought and the frost. Due to its rapid growth and characteristics of smothering plants and other surroundings, it would take approximately 2 or 3 years for the forests to be fully covered which would conduct destruction in biodiversity efficiency.

To conclude, managing the growth of the plant is not a straightforward answer, however, there is a way of effectively eradicating it from a specific

place which would be to demolish its root structure. However many states have attempted to use herbicides that arose with variable results. This means that to permanently get rid of a kudzu vine can be a long time, approximately taking up to 10 years. The control efforts towards the kudzu plant include both mechanical and chemical ways which have been both put into effect ahead of time as early as in 1953 by the interest of the US government. And as early as of in 1970, the US government asserted the kudzu plant as a weed due to persistence in its relentless production (Southeast Exotic Pest Plant Council). Although there are control efforts in order towards the issue of the kudzu plants, they've only developed from that point due to the manner in which Kudzu surpasses and covers the endemic plants which then kick off a chain reaction that weaken the ecosystem in the procedure. Kudzu disorganizes the edible chain by menacing the vegetation that the endemic animals' value for their habit and sustenance. Furthermore, this specie? s particular root structure has an influence on the quantity of water present in the soil, evidently leading to the ecosystem overall.

As we have clearly stated, it is possible for the vine Kudzu to surpass and overcome other endemic plants, leading to disruption in the overall forested areas. Although this invasive species is largely overrun in South America there are measurements and other limitations in action to help manage the growth of it throughout other places like Indiana. In reference to the Purdue University, the increase and persistence in actions such as mowing and gazing towards the pair of cattle & goats work as a way of controlling this

invasive species, this is because they feed off the kudzu vine, meaning that it would make the plant lose its strengths and evidently gain dominance over the plant. There are certain precautions that one should take while mowing patches of the kudzu plants as they are quite solid tangled vines that obscure different types of hazards. As we adapted before, Kudzu evolves quite rapidly, as fast as in 30 or 61 centimeters per day (phys. org 2016. Once the Kudzu shapes a cover over the trees and lands, light is blocked from getting through the targeted places so most if not by far of the fundamental plants and tree inevitably perish, unlike only the strong plants and land structure can endure the stifling impacts of a kudzu invasion. Taking into account that, now we can only imagine the amount of harm a kudzu plant can do to sustenance or a simple timber crop. In reference to the forest economist Coleman Dangerfield, they gauge that for each section of land of timber that kudzu plants overtake, the matching landowner becomes deprived of \$48 per section of land every year. Based on a plant ecologist James miller? s calculations, he states that electricity sources invest about 1. 5 million dollars each year to control the kudzu plant and retain it from electrical cables and utility posts. That being sufficiently unnerving, there is also the weight of the vine that eradicates the trees and lifting the plant from simple irritation to a genuine wellspring of risk.

Working towards managing the Kudzu plants, there is also a wide variety of herbicides that are used in the process whose results would alter from the place of activity and applications. According to Indiana? s Department Of Natural Resources, they propose that the herbicides are to be put into action

in the late summers due to the fact that it's when the plants are greatly prone to convert the chemicals into the storage means making it more competitive. Going back to the chemical approaches to control the kudzu plant, there has been a study that has come to a conclusion of how long it would take for the herbicides to fully control the vine which is up to 10 years. Furthermore, other ways to kill the roots of the plan include soil solarization which happens in the process of solar heating. In spite of the cost, this alternative is very valuable as it sways away from the chemicals used in other options which unintentionally influence its surrounding species. Nevertheless, the most sufficient mean of managing the production of the kudzu plant is natural-based, with wild goats and sheep which devour the vine. The extension of this vine has spread more immensely in the US than Asia and has taken up to 150, 000 Ian units every year which means that the growth of this vine in the US irrepressible. However, there is no evidence leading towards the same struggle for the ecosystem in Asia which would mean that ecosystem in Asia has been able to get the vine under control.