Promoting Nepalese Alder Wood Exports to Canada
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Introduction

Nepalese alder wood (*alnus nepalensis*) is a deciduous tree native to Nepal. It has a perennial life span, growing quickly in two to three years to a size of 30m, and 60cm in diameter. Its appearance is a light tan to reddish brown bark, which darkens and reddens as the tree ages (Wood Database, 2015). Positives of this product include environmental benefits through nitrogen fixation, limiting soil erosion and production of oxygen. Nepalese alder wood produces beautiful furniture, unique tea boxes and can be used for construction. Negatives of this product include durability of the wood, shipping, and high potential for pests and diseases (Agroforestry, 2009). Nepalese alder wood has potential to be a good source of income for hillside farmers in Nepal.

Product Information

Nepalese alder is used in many different products. It can be used for medical purposes, in the form of a diuretic, which can reduce swelling and the juice from the bark can be used for soothing burns. Nepalese alder bark contains 7% tannin, which is used in the dyeing and tanning of products such as furniture. It can be used for carpentry, construction and furniture. It can be viewed as a cheaper alternative for furniture to Red alder, as it may be less durable but produces high quality appearances non-the-less. It dries very quickly and well and therefore is a good source of fuel wood for the local people (Plant *et al*, 2012).

Growing Conditions of Product

Nepalese alder grows well in elevations up to 2800m, which is ideal for hillside farmers in Nepal, and is often found near rivers or on the outskirts of villages (Flora *et al*, 2015). Nepalese alder wood grows in optimal temperatures of 15°C to a maximum of 28°C. Soil pH (acidity of the soil) needs to be between 5.5 and 7 on the pH scale, soil depth must be deep greater than 150cm, and the soil should be well drained. Nepalese alder wood grows ideally with precipitation ranging from 100cm to 200cm (Ecocrop, 2015.) If this product is to be used for fuel wood, it should be planted closer together, although normal plantation spacing for *alnus nepalensis* is 2.5mx2.5m (Agroforestry, 2009).

Environmental Benefits

There are many environmental benefits to Nepal with the growth of Nepalese alder. Nepalese alder is very beneficial for farmers in the hillside regions of Nepal as it can control erosion due to its extensive lateral root system. *A. Nepalensis* can help to improved previously degraded lands through nitrogen fixation, and it can be used as a soil improver. Nutrients are cycled through the tree and can be found in the leaf litter on the group. Nutrients absorbed include nitrate, phosphorus, potassium and calcium. Nepalese alder is also used in some areas of Nepal for land reclamation, such as areas with low fertility in the soil and old mines (Agroforestry, 2009.)

Labour Required and Cost Issues associated (seasonality)

Nepalese alder can be harvested for firewood use after 5 years, and at around 10 years into its lifespan for furniture and other products. In order to use *alnus nepalensis* to the best of its ability harvesters will need labour and money to pay the labourers. The seeds for Nepalese alder can be collected between November and March. Labour will be needed in order to collect the seeds before they are spread away by the wind. Seeds remain viable for fifteen months in a cool storage space (Agroforestry, 2009).

Evaluation of export potential to Canada

The furniture market in Canada has imported an average of 5,320 million dollars in furniture from 2007-2011. Whereas exports of Canadian made furniture have been slowly decreasing, there is a large demand for cheaper furniture (Statistics Canada, 2014). Nepalese alder wood is a cheaper alternative to red alder as it is softer, but still creates beautiful furniture. A business number will need to be obtained from the Canadian Revenue Agency (CRA) first, and then the importing process can begin. In order to transport wood products, it is likely that access to a shipping port will be needed, and then a tanker can carry it across the Pacific Ocean. Nepalese farmers can view a list of certificates that are needed on the Canadian Border Service Agency's website; an example of a permit needed includes a sanitation check (no pests or disease on the wood). Goods originating from Nepal are subject to the Most-Favoured-Nation (MFN) Tariff, and must have proof of origin upon importation (Canadian Border *et al*, 2015). Possible studies still needed to ensure the absolute benefit of this product to Nepalese farmers include:

Determination of benefit to women and children, more information regarding labour costs associated and manufacturing the product in Nepal.

Potential buyers in Canada

Canadian Home Furnishings Alliance
http://www.chfaweb.ca/
905-677-6561

Quebec Furniture Manufacturers Association
http://www.afmq.com/en/contact
514 866-3631

Carl Wood
http://www.carlwood.com/#sthash.KQa5UGxf.dpbs

Mako Wood
http://makowood.com/

Critical analysis

Although there are many benefits that can come from hillside farmers growing Nepalese alder, there are also many difficulties that can arise. A. Nepalensis is extremely susceptible to wind damage, particularly in the first year of growth. This product is also exceptionally susceptible to disease and pests – specifically to assault by defoliators (an adult or larva insect that strips all the leaves from the tree) Anomala spp. and Oreina spp. An economically important pest is an aphid called Eutrichosiphum alnifoliae; it is significant as it will attack the tree in its young stages of development (Agroforestry, 2015). Farmers in Nepal will also have to figure out how to get in contact with the right people in Canada, which may be difficult if they are unable to access Internet in their villages.

There are still many positive outcomes of growing Nepalese alder wood, such as terminating erosion in hillside areas. Many farmers who grow alnus nepalensis intercrop it with annual crops such as maize, pumpkin, chili and most commonly it is used for shade in cardamom crops (Agroforestry, 2015). It is often then recycled for firewood use, or charcoal fuel. Nepalese alder wood can also help to generate a second source of income for these farmers who are already intercropping it. It will take work in order to start up in the business of furniture making, boxes or construction but once involved it could have major economic benefits for farmers in the hillside regions of Nepal.

Conclusion

There is still much to evaluate when it comes to exporting Nepalese alder wood to Canada, however there is a vast amount of potential for this product. Nepalese alder wood can have beneficial environmental impacts for hillside farmers in Nepal, and can be easily intercropped with annual crops these farmers are already growing. Nepalese famers may face problems with disease in early growth years, and barriers getting into the furniture market in Canada, but once they have gained access they will see economic and environmental improvements to Nepal.

References

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