

## Forest sustainability: an environmental dead-end without biodiversity

By Tony Kryzanowski

Sustainability and biodiversity as they relate to forest management are heads and tails of the same coin. Neither can exist or be achieved without the other, which is why we have to believe that Canada's forest management practices on Crown land—though not perfect—are the best in the world.

We need to understand that fact, embrace it, and promote the heck out of it because of the destruction and forest management mistakes being made in other parts of the world.

It's no secret that forest companies would like nothing better than to harvest a cutblock and then replant that block in as efficient a 'plantation' as possible with the highest value commercial crop and with the least amount of competing vegetation. It makes harvesting in future that much easier and cost effective. Mixed stands with a wide variety of stem ages and species competition are expensive to maintain and harvest—but there is no doubt in my mind that this is the price that we Canadians must pay if we want a healthy and sustainable forest environment.

I read an interesting article recently about what the United Nations Food and Agriculture Organization (FAO) discovered about reforestation practices in places like China, India and Vietnam. What they found is that while loss of natural forest continues—with areas such as Mekong in China having lost a third of its natural forest in 35 years—the actual vegetation coverage in the region is increasing. That should be good news because deforested land is being replanted, right? Not necessarily so.

What they discovered is that biologically diverse forests were replaced with single species planted for commercial purposes, specifically palm oil and rubber plantations. This practice has been blamed for a four-year drought in what has traditionally been a rain-rich area. And because these plants are more water-intensive species than native trees, they are consuming a large amount of the area's water resources. This practice has also no doubt had a significant negative impact on the area's native animal and plant species.

I have witnessed similar practices in New Zealand, Sweden, Brazil and the U.S. What's different about these forest product competitors is that it is common for large land tracts in all these countries to have private ownership. So, while privately-held, deforested lands are usually planted back into forest, they tend to be monocultures of intensively managed, high value species like southern yellow pine, Radiata pine or eucalyptus. The planting of these trees is highly controlled in terms of relative planting distance, stand age, and vegetation control.

In other words, they are plantation monocultures with little or no biodiversity.

While Canada has much better environmentally-sensitive forest management practices on its largely publicly-owned forest land base, there are still areas of concern. We are benefitting from the foresight of our forefathers to maintain a more balanced land base of Crown land to privately-held land. Because of that balance, I applaud the many initiatives to encourage the establishment of plantations on private land, which does and will deliver positive environmental dividends such as establishing carbon sinks in the fight against greenhouse gas emissions. In many cases, they also provide cover for wildlife, nesting habitat for birds and land erosion control.



However, when it comes to managing Crown land, we need to pay close attention and not become overzealous with vegetation control, particularly in the management of mixed stands in those zones where the parkland forest transitions into the boreal forest and the Great Lakes hardwood forest transitions into the boreal. These represent some of the most bio-diverse forests in Canada because of their mix of both hardwood and softwood species, enhanced with a highly diverse understorey. These highly complex environments support thousands of plant and animal species and should be maintained as much as possible.

We have to be careful and vigilant that in pursuit of profit, we do not significantly impact the biodiversity of these forests, particularly with our reforestation practices.

One practice I believe should be avoided is replacing coniferous stands in mixed forests with coniferous seedlings. I understand that suggesting that we should be doing more to follow the natural succession of these sites is controversial because a company that makes its living producing 2 X 4's is going to want to harvest those seedlings that they have planted into more 2 X 4's once they mature. However, we have to learn from the hard lessons that others have demonstrated. We have to be extremely careful in the management of our Crown forest resource to ensure that biodiversity is maintained and that we are not turning what would naturally have been a mixed forest into coniferous monocultures strictly for financial gain.

While the Canadian forest industry is generally doing a good job in its forest management practices, in some cases it has to put biodiversity ahead of profit because it is critically important to the entire health of the planet. We also have to understand that we are the best on the planet in this area—and not be afraid to tell the rest of the world and our customers.