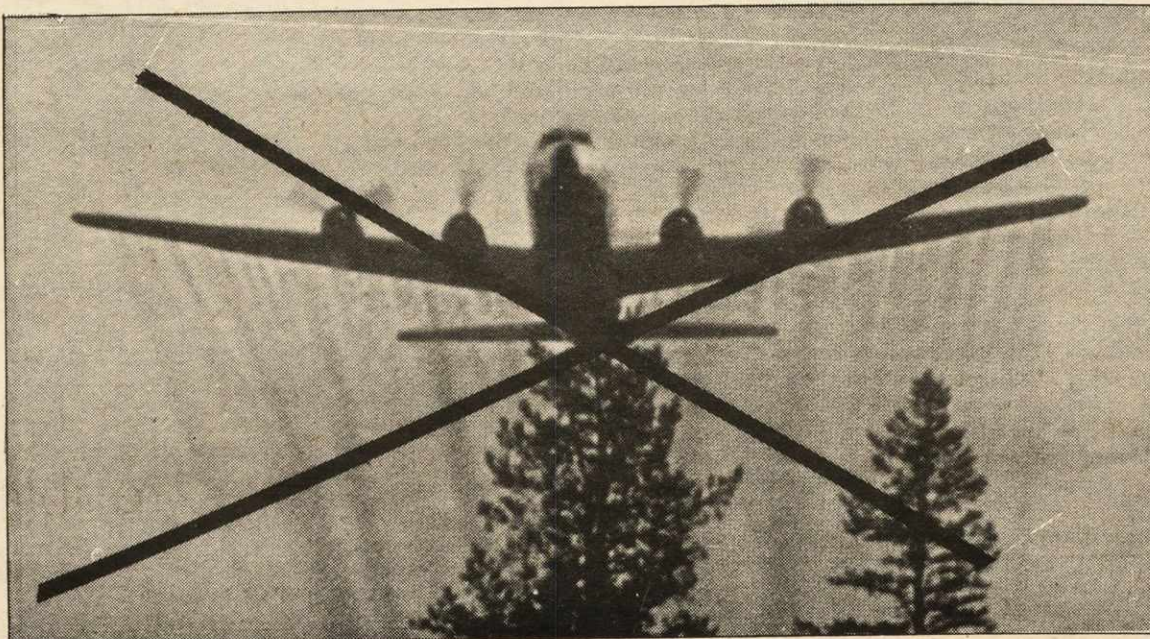


The herbicide debate continues

Dr. Bill Freedman,
Assistant Professor,
Department of Biology

I am an ecologist, with some research experience in the environmental impacts of forestry practices, including the silvicultural use of herbicides. As such, I was disturbed by certain aspects of the Dalhousie Gazette's treatment of this topic in the "Herbicide Supplement" of November 10. In particular, I was shocked by the serious misinformations that occurred in the article by D. Olie. It is not my intention in this letter to present a detailed rebuttal; rather I feel duty-bound to correct some of his more blatant and important errors of fact or interpretation.

1) "Today our forests are of only marginal commercial value, and this is the root problem behind the herbicide spray issue." This statement is absurd, in both the Nova Scotian and the Canadian context. The Canadian trade balance due to the forest industries (i.e. total exports minus total imports) exceeds that of the sum of agriculture, crude minerals (including oil, gas, coal and other minerals), and manufactured products. In addition, about 300,000 persons are directly employed (including some 30,000 in Atlantic Canada and 7500 in Nova Scotia). Could this be the economic impact of a natural resource having "marginal commercial value"? This point is very important, because serious restrictions on an important silvicultural activity like the use of herbicides, could have profound impacts on this crucial economic sector. The "root problem behind the herbicide spray controversy" has little to do with the so-called commercially-marginal resource. Rather,



the offending photo herbicides are used in order to ensure it's continued high value, by allowing the adequate regeneration of commercially-desireable tree species on those sites which would otherwise deteriorate to a lower-quality stand.

2) "...big profits are hard to come by for any tree harvester." Ridiculous. Thousands of people are employed, essential products are made available to us, and many millions of dollars in profits are made.

3) "...in ideal conditions (spruce) can be big enough for construction lumber or pulp in just 20 years." Such phenomenal growth rate in this genus would be nice, but they cannot be achieved under our climatic and

edaphic conditions. They may be attainable in the southeastern United States and elsewhere, using intensive silviculture techniques that are more akin to agriculture than to the types of forestry that are practicable in natural stands in Canada.

4) "Hardwoods...have little use in the current system." Nova Scotia has a sizeable hardwood mill at East River which produces a particleboard called Masonite; hardwood lumber is used for making furniture and pit props; and hardwood is a much better firewood than softwood. Overall, if the poorly-quantified use of hardwood for firewood were considered, it is possible that the annual allowable cut of hardwood is currently being exceeded in Nova Scotia (as is the softwood AAC).

5) "The active ingredient in the two (herbicide spray) preparations is a compound called dioxin, one of the deadliest substances known to man." A certain dioxin isomer known as TCDD is a contaminant of 2,4,5-T solutions (but not 2,4-D). However, under no circumstances could TCDD be considered to be an active ingredient, and it plays no role in the phototoxic actions of these herbicides, as was later stated. This is not surprising, considering the very low concentrations of TCDD in the herbicide solutions (all 2,4,5-T solutions used in Nova Scotia in 1983 had less than 0.01 ppb of TCDD), and the consequent vanishingly low rate of application of TCDD when these herbicides are used in forestry (less than .03 micrograms

per hectare—one of Olie's "salt grains" would weigh perhaps 10,000 times as much; imagine dissolving this quantity in water and spraying it over an area of 100m x 100m, i.e. a hectare).

6) "Sprays are not the only way to go. One means of assuring conifer growth is simply to replant them after harvesting." In Nova Scotia, most herbicides are used in situations where conifers have been replanted, but under conditions where they require subsequent release from broad-leaved plants. The mere planting of conifer seedlings on a cutover site is not sufficient—their survival and growth must be ensured as well, and the preferred technique is to use herbicides as releasing agents.

7) "The core of the entire forestry problem is that there are nearly as many theories of forest management as there are foresters." This is a nihilistic statement, and an insult to the thousands of dedicated and competent foresters and forest scientists around the country. Modern forestry is more of a science than an art, and there is much less controversy over appropriate management techniques among mainstream foresters than is implied in this quotation.

8) "Forests...are almost entirely owned and managed by governments and corporations." In Nova Scotia, some 52 per cent of the forested land is in small private freeholdings of less than 400 ha.

continued on page 7

Reader complains over deleted portions

To the Editor:

In last week's Gazette editorial (sic) my letter on herbicide spraying was published with over a third of its contents selectively deleted and therefore weakening my arguments. Although its length approximated that of a commentary I was told when submitting the letter that it would not have to be shortened for an editorial letter. Having had first-hand experience with chemical spraying procedures, unlike previous contributors on the same issue, it was intolerable for the Gazette to censor it, especially in view of their policy to do so only when they are of a "libelous, sexist or racist nature."

The following comments were removed: "Without chemical control, such hardwood competition for growth will eventually mean reduced softwood yields. Any naive suggestion that mechanical brush control is a suitable option can only come from people who have never seen the rough terrain of newly-cleared land overgrown with brush. To

require men to manually clear such areas with chainsaws would be inviting an intolerable increase in the number of disabling accidents in the forest sector as witnessed in similar highway clearing operations" (Par. 2 final comments).

"... as evidenced by their repeated arguments that 2,4, 5-T and dioxin posed a risk to their general health. It requires only the knowledge that watercourse contamination is minimal or non-existent, and that no spraying is allowed within 3.2 km (2 miles) of habitation to question how exposure to local inhabitants is possible." (Par. 3 final comments)

In paragraph 5 on the subject of reduced aerial spraying of herbicides, "This is simply a public relations move on the part of the Nova Scotia government to appease so-called concerned lobbyists, and has actually increased the hazards of herbicide application." Furthermore (sic), my closing comments were deleted "if such groups hold no compromise positions and continue to fight for a ban of

these "Agent Oranges" while remaining ignorant of the much greater hazards associated with agricultural spraying, they are using public funds to encourage health hazards to Nova Scotians. One only has to point out that agricultural districts are notorious for having chemical loading sites near streams and rivers without regard for swimming holes downstream—is this not a more pressing hazard?"

That which I found grossly unjustified was to misrepresent facts which I presented by their censorship in the following, "Continued (sic) reference to dioxin and Agent Orange is unjustified in their arguments given that the contamination levels in the herbicides are well below the 0.1 ppm // DELETED federal guidelines, a huge difference from the greater than 50 ppm // know to be present 15 years ago."

The editor recently defended the rather one-sided image of this paper by maintaining that there are no opposing views submitted to be printed. If this is so, then how is it possible to

present a factual and responsible argument that is contrary to regularly published commentaries when the Gazette staff reserves the right to delete parts of, or complete sentences of, a readers

(sic) letters. How can they justify reducing in length one of the first pro-spray articles and continue to misinform the university readers by continued features that give only a non-scientific viewpoint. Again and again, Gazette articles have published incorrect assumptions about herbicide spraying as graphically illustrated by a recent insert titled "Herbicides—Spray the Forest, Kill the Land." This feature contained the poster-size picture of a DC-production type aircraft used only in insecticide spraying, many times larger than any aircraft used in the smaller scale herbicide operations, and also made references to the contaminant dioxin as the active ingredient in 2,4,5-T. If such articles are not responsibly researched then anti-spraying groups will continue to mislead

the general public into believing that forestry spraying is the only public hazard, when health data is now indicating that agricultural spraying may be of equal, if not greater concern.

Mark D'Arcy
Medicine I

Ed's Note: The Gazette stands corrected by both Dr. Freedman and Mr. D'Arcy on some points raised in the herbicide supplement of Nov. 10.

The editor has never maintained there are no opposing views submitted for print—there are all kinds, on all sorts of issues. Abortion and disarmament immediately spring to mind.

The Gazette does not censor letters or articles, except for sexist, libellous and/or racist comments. In the wee hours of Thursday mornings, articles may be "edited" with an exacto blade to make them fit.

The only articles on herbicide spraying which have appeared this year are in the Nov. 10 issue of the Gazette.