

**LD 125** An Act To Prohibit the Aerial Spraying of Glyphosate and Other Synthetic Herbicides for the Purpose of Silviculture **PERSONAL STATEMENT IN OPPOSITION**

by Maxwell L. McCormack Jr., Research Professor Emeritus of Forest Resources<sup>1</sup>, U Maine; resident of Unity

In **1971**, **glyphosate** was recognized at weed science society meetings as an effective herbicide. In **1974-1975**, funded by the USDA-Forest Service, in addressing regeneration concerns of landowners, I applied field study plots, including **glyphosate** treatments, in T5R12 WELS, Maine. In **1977**, within the applied research program of the Cooperative Forestry Research Unit, U Maine, I administered, under **operational** conditions, the **first aerial applications of glyphosate in Maine** with replications in Bald Mountain Township and T28MD.

With five decades of glyphosate experience, there is an **abundance of consistent information** documenting its history, mode of action, effectiveness, and safety. For example, **The Herbicide Glyphosate, 1985, Edited by E. Grossbard & D. Atkinson. Butterfields, Boston. 490 pp.** and two exhaustive compendia (available as computer files) by **Drucilla S. and Thomas P. Sullivan; 5<sup>th</sup> Edit, Non-target Impacts of the Herbicide Glyphosate** (refs. Prior to 2000) **241 pp.**; **6<sup>th</sup> Edit. The Herbicide Glyphosate: Crop Tree Productivity and Non-target Impacts** (refs. 2000-2012) **274 pp.**

**in Maine, the first trials of helicopter-applied herbicides were flown in 1947.** Research was documented by the USDA-Forest Service at the **Massabesic Experimental Forest, Alfred, Maine in 1954.** Over the intervening years, helicopter delivery technology has been perfected. Now, **in concert with electronic guidance systems, effective forest vegetation management treatments are delivered with precision and real-time documentation.**

- Maine forests are unique. Comparisons with others, and Maine forests of past times, must be considered carefully with regard to latitude and related photoperiods, geologic and recent history (e.g. evolution of harvesting systems), and developing impacts of climate change.
- **Reduction of root competition from undesirable vegetation is a critical objective; glyphosate is uniquely mobile in targeted root systems, but is neither mobile nor persistent in soils.**
- Glyphosate is an amino acid inhibitor, a suppression process that occurs only in plants.
- Glyphosate is uniquely effective for controlling beech, a major challenge in Maine forests; and, it is useful for culturing sugar maple regeneration.
- **Aerial application provides more accurate and effective deposition of spray patterns, with less herbicide in lower volumes, than can be achieved with ground systems.**
- **Aerial applications are more timely and productive than ground operations; managers can apply treatments during best spray windows with regard to weather conditions (e.g. mornings are better than evenings) and relative phenological conditions of target vs. crop species.**
- Low productivity of ground applications restricts opportunities for utilizing desirable spray windows, especially those with short time spans.
- **Reduced productivity (acres treated per hour) of ground application, and consequent losses of areas of high-yield forestry, will likely result in increased harvesting footprints and additional road construction and costs.**
- Travel of ground equipment, even the footsteps of walking laborers, disturbs and injures target vegetation, thereby reducing their susceptibility to spray treatments.
- Ground application requires more transport and handling of herbicide products.
- **Ground application significantly increases site disturbance that will activate dormant seed banks and foster increased root development of undesirables.**

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In the event of questions, needs for elaboration, or for a copy of the Sullivan compendia, Email is [mlmcc34@gmail.com](mailto:mlmcc34@gmail.com)