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Herbicide Use Increases Maine Blueberries by 60 Million Pounds Yearly

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Maine's 60,000 acres of wild blueberries grow naturally in fields and barrens that stretch from Downeast to the state's southwest corner. Native Americans were the first to use the tiny blue berries, both fresh and dried; it was not until the 1840s that wild blueberries were first harvested commercially.

Herbicide treated plot surrounded by weeds

Through management of this wild acreage, commercial blueberry production reached 10 million pounds annually in 1927. Weeds were identified as a major factor that limited yield in 1946 and were still a major concern in a 1974 survey [1]. Weed growth not only lowered blueberry yield through competition but also made harvesting difficult, with 10 to 30 percent of the crop left behind [2]. The inability to control weeds also resulted in growers' unwillingness to fertilize blueberries, since the fertilizer resulted in denser growth of weeds [2].

The registration of the herbicide terbacil in the 1970s provided effective control of grasses and sedges, and resulted in significant yield increases when combined with increased fertilizer use [3],[4]. The subsequent registration of hexazinone in 1983 provided effective control of grasses and herbaceous and woody weed species in low bush blueberry fields [4]. As a result of improved weed control, research demonstrated that use of hexazinone increased blueberry yields by 56 percent [4],[5]. Since the introduction of hexazinone, blueberry production in Maine has more than tripled, from an average of 20 million pounds per year to over 80 million pounds per year (Figure 1). In addition to reduced weed competition, hexazinone has facilitated increased use of fertilizer. Approximately 95 percent of Maine's wild blueberry crop is treated with herbicides [5].

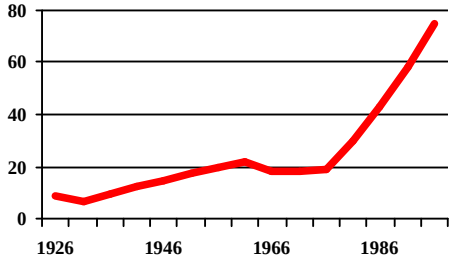

Figure 1: Maine Wild Blueberry Production (Million Lbs/Yr)

In 2007, direct and indirect economic impact of the wild blueberry industry in Maine totaled $250 million, making wild blueberries a major contributor to Maine's economy.

References

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