as chilling injured when one pit of 5 mm^2 or larger was observed on the surface. The paired "t" test was used to analyze the data (Table 1).

TBZ incorporated in wax at 2000 ppm reduced CI and decay during and after cold storage. CI was generally light, less than 5 pits per fruit, upon removal of fruit from cold storage. The Brix value was 11.5° and the citric acid 1.8%. The Brix/acid ratio was thus increased from 4.9 at harvest time to 6.4 after cold storage. Appearance of the fruit was very good after storage but the flavor was not as good, probably due to the loss of acidity. There was no difference in taste between TBZ-treated and wax-treated grapefruit.

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Terbacil and Fertility Effects on Yield of Lowbush Blueberry[1]

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Abstract. **Terbacil (3-tert-butyl-5-chloro-6-methyluracil) at either 2.24, 3.58 or 7.17 kg/ha applied under high fertility level (168 kg N/ha from 1-2-2 formulation) significantly increased yield of lowbush blueberries (*Vaccinium angustifolium* Ait. and *V. Myrtilloides* Willd.). No yield differences were observed among terbacil rates. Rate of fertilizer application affected berry yield.**

Blueberries are commercially harvested in Maine, the Maritime Provinces and the Province of Quebec from native lowbush blueberry stands. The presence of numerous native and introduced plant species, including grasses, sedges and herbaceous flowering weeds, constitutes a serious weed problem. To prevent excessive growth of weeds, growers have traditionally adopted low fertility management, thereby restricting yields of blueberry fruit (1, 3). The need for an herbicide that effectively controls grasses and sedges is a major concern of the lowbush blueberry industry.

In 1972 Trevett and Durgin (2) reported that, in native lowbush blueberry stands, terbacil controlled perennial grasses and sedges. In 1973, they reported that, for the year of application, terbacil gave control of the following flowering weeds in lowbush blueberry fields: yarrow (*Achillea millefolium* L.), hawkweed (*Hieracium pratense* Tausch.), rattle weed (*Rhinanthus crista-galli* L.), brown-eyed susan (*Rudbeckia hirta* L.), pinweed (*Lechea* spp.), cincquefoil (*Potentilla canadensis* L. and *P. tridentata* Ait.), blue-eyed grass (*Sisyrinchium* spp.), red clover (*Trifolium pratense* L.), sheep sorrel (*Rumex acetosella* L.) and firewood (*Epilobium angustifolium* L.) (3).

This experiment was conducted to determine the effects of terbacil and fertility management on the yield in native lowbush blueberry stands.

After the 1971 harvest, lowbush blueberry plants in a commercial field in eastern Maine were pruned with a rotary mower leaving a stubble of approx 7-10 cm. On May 5, 1972 terbacil was applied at 0, 2.24, 3.58 and 7.17 kg/ha, in combination with different levels of fertilizer (no fertilizer, 56 and 168 kg N/ha in a 1-2-2 ratio) applied on April 22. The treatments were replicated 5 times in a randomized complete block design with plots measuring 1.5 x 15.2 m each. During the commercial harvest period in late August, 1973, the plots were hand raked to determine berry yield. Bayes LSD analysis at a cost ratio of 100 (approx 5% level of probability) (4) was used to distinguish differences among treatment means.

Blueberry yields were increased significantly in all plots receiving terbacil treatment under the high fertility level (Table 1). Terbacil effectively controlled competing weeds resulting in higher blueberry yields. Differences observed among rates of terbacil application were not statistically significant.

Table 1. Effect of terbacil and fertility management on yield of lowbush blueberries.

Treatment (kg/ha)		Blueberry yield
Terbacil	Fertility	(kg/ha)
0	168 N(1-2-2)	2741 b[z]
2.24	168 N(1-2-2)	4692 a
3.58	168 N(1-2-2)	5648 a
7.17	168 N(1-2-2)	5475 a
2.24	Unfertilized	1346 c
3.58	56 N(1-2-2)	3351 b

[z]Mean separation by Bayes LSD, ratio 100 (approx 5% level).

Fifty-six kg N/ha from 1-2-2 fertilizer in combination with terbacil at 3.58 kg/ha increased blueberry yield when compared to non-fertilized stands receiving 2.24 kg/ha terbacil treatment. This yield, however, did not differ from that obtained from blueberry stands receiving 168 kg N/ha from 1-2-2 fertilizer without terbacil treatment. Plots receiving fertility treatments without terbacil had excessive weed growth and were difficult to rake.

In native lowbush blueberry stands in which herbaceous flowering weeds were not abundant and perennial grasses and sedges were the principle herbaceous weeds, terbacil in combination with high fertility management doubled yields.

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