DEALING WITH THE BEECH COMPONENT IN MAINE FORESTS

NERCOFE
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ORONO, MAINE

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“Although there is an increasing need for research and experimentation there is a greater need to make use of what is available.”

C. B. MacDonald, woodlands staff forestry manager, Proctor & Gamble Cellulose, Ltd, Grand Prairie, Alberta 1982. PULP & PAPER CANADA 83:5
1932  J. Ehrlich. occurrence in USA. Jour. Arnold Arboretum
b.b.d. entered through Halifax, NS from Europe late 1800s....
variety of publications and reviews, primarily by pathologists

1967  reported, discussed. NE SAF Annual

1971  glyphosate as herbicide

1974  plots at Telos Area

1977  CFRU aerial applic plots
1978  effic of gly at NEWSS, Boston

1980  effic of gly at WSSA Toronto
      esp effective on beech, brackets of rates

1981  natl conf at Purdue
      Effic on beech, release of sugar maple

1989  100,000 acres aerial in Maine

1993+  gly special use label (in Maine)
      for sugar maple release
DELIVERY

AERIAL / HELICOPTER
GROUND Mach-mounted MB
GROUND Mach at harvest
BPMB
HYDRAULIC BP
Squirt / Wash Bottle
Paint Brush
Rag-on-stick
Figure 2. Third-year posttreatment control of beech and sugar maple for all glyphosate rates (lb/ac) and surfactant concentrations tested. Beech is indicated by dashed lines and sugar maple (S. maple) by solid lines.
Figure 1. Third-year posttreatment control of five dominant hardwood species from all glyphosate treatments combined. Same letters above bars (a, b, c) indicate species that were not different at $\alpha = 0.10$. Error bars represent 1 SD above and below the mean.
SEASON-PHENOLOGY, FOLIAGE CONDITION

TARGET STRESS

PLANTING / PLANTING STOCK

WATER QUALITY

SURFACTANT

RATE CALCULATION

EVENING HOURS APPLIC

NO WIND, LATERAL MOVEMENT
(observe with back lighting, long lens)

MIXING, REMIXING

SPRAY PATTERN CONFIGURATION

More ---
DROPLET SIZE
(pay for large droplets)

a.i. CONCENTRATION

COVERAGE
Spray to wet
Not to run-off
Relative percentage cover of three species three years after operational treatment of a young hardwood stand with glyphosate (Plum Creek Timber Co. data)