

**BXN™ COTTON: MARKETING PLANS  
AND WEED CONTROL PROGRAMS  
UTILIZING BUCTRIL®**

**J. R. Collins  
Rhone-Poulenc Ag Co  
Research Triangle Park, NC**

**Abstract**

In 1988, an agreement was signed between Rhone-Poulenc Ag Co., Calgene, Inc., and Stoneville Pedigreed Seed Co. to develop the first genetically engineered cotton varieties that are resistant to their companion herbicide. For the first time ever, a grower could apply an effective over-the-top herbicide to cotton without crop injury.

The BXN™ consists of planting a bromoxynil-resistant cotton variety utilizing BUCTRIL® -EC herbicide for control of annual broadleaf weeds. BUCTRIL® is an effective postemergent herbicide that is widely used in corn and small grains. There is no documented weed resistance to bromoxynil and it is a very non-persistent herbicide. Up to 15.0 lbai/A of bromoxynil has been applied to the bromoxynil-resistant varieties without crop injury.

Utilizing the BXN™ system reduces the need for early and mid-season post-directed herbicide applications. Weeds may be treated from preplant up to 60 days prior to harvest. The application of BUCTRIL® is based upon weed height rather than cotton height, as is required with post-directed applications. Being non-volatile, off-target crop injury problems are reduced. Due to its low persistence in the soil, there are no crop rotation restrictions utilizing BUCTRIL®. With the BXN™ system, it is recommended that a grower apply both a preplant incorporated grass herbicide and a preemergence broadleaf herbicide prior to postemergent applications of BUCTRIL®.

During 1995, 45,000 acres were planted to bromoxynil-resistant cotton varieties, which consisted of BXN 57 and BXN 58 involving approximately 500 growers. In 1996, the program will be expanded to 200,000 acres involving approximately 2,500 growers. A variety backcross program is currently underway and two additional varieties should be available in 1997, ST 474 and ST LA887. BUCTRIL® -4EC received conditional registration in 1995 and full registration is expected by the 1997 use season.