



PASSAGE *to* SUCCESS

FARM BUREAU - CONFRONTING THE ISSUES

Biotech Versus Conventional Seed AFBF Policy Development May 2009

Issue: Since biotech seed varieties were introduced 12 years ago, there has been a major shift toward the planting of biotech seed. Only about 2 percent of the seed sold in 1996 was biotech, mainly soybeans; compared to 2008 when 80 percent of the corn, 86 percent of the cotton and 92 percent of the soybeans planted were biotech seed. In the process of this rapid adoption of biotech seed, the amount of conventional seed utilized has declined by the reciprocal amount for the respective crops.

Background: There has been increasing concern about the availability of good, high quality germ plasm in conventional seed for several years. Several aspects of this issue are currently being discussed and debated within the farm community.

First, farmers in general are concerned about the increasing price of biotech seed, reflective of the growing tech fees assigned by life science companies who hold the patents on gene splicing technology. Their general concept of this technology pricing is to take a percentage of the increased economic value of the higher production. However, the gross return reflects a combination of the increased production, higher yield, and price. Since the prices of all commodities has increased in recent years this has also driven up the tech fees. For example, whereas conventional (non-biotech) corn seed now costs about \$120 per bag, seed with several of the biotech traits included can cost \$225-\$250 per bag.

Second, the availability of alternative varieties of conventional seed with up-to-date germ plasm has been greatly reduced. For example, in the past there have been up to a dozen conventional soybean seed varieties available. Today there are only two. Seed companies claim that when they do offer conventional varieties the demand tends to be limited as are returns to their research and investment. Consequently, more research and investment are being directed to developing biotech seed.

Crops produced from conventional seed can command a premium depending on the market being sold to; i.e. Japan. That premium can range from 10 to 75 cents per bushel for corn and from \$1 to several dollars for soybeans. Organic crops, which require conventional seed, may see premiums of two to three times the price of the local market. Neither of these two non biotech markets are large in the context of the total market; however, the returns to individual producers raising these products can be substantial and represent a growing market.

Finally, there is concern that seed research, in universities and by private seed breeders, is increasingly being focused on biotech varieties at the expense of conventional varieties. Part of this situation reflects the fact that gene splicing is a

patent technology largely controlled by just a few large life science companies. The life science companies provide significant money for university seed research, so it is likely that the major focus will continue to be on the biotech seed development.

Questions:

Is the availability of conventional seed an issue for farmers?

If this is an issue, what are the implications of a limited amount of conventional varieties with high quality germ plasm, both short-term and long-term?

What actions can be pursued to encourage universities and private seed breeders to pursue more research and development of conventional seed varieties?

Would more public funding of Land Grant University seed research programs help encourage conventional seed research?

FARM BUREAU POLICY:

Policy 230 – National Farm Policy

Lines 32-33: We support a consistent, long-term market-oriented farm policy that will (8) Enhance U.S. agriculture's access and competitiveness in the world market;

Lines 51-53: We should undertake a comprehensive effort to assure U.S. producer competitiveness. Competitiveness issues should include biotech seed cost, agricultural research, . . .

Policy 337 – Biotechnology

Lines 31-36: We recommend that Congress take the appropriate actions to ensure that the USDA's Agriculture Research Service plant-breeding programs be permitted to utilize biotechnology, and other developing technologies in their breeding programs. We encourage seed companies to continue producing and making available conventional and genetically modified seed varieties.

Policy 360 – Plant Variety Protection Act (PVPA)

Lines 7-18: While the advent of biotechnology and the applicability of plant and utility patents to plants have complicated the plant protection landscape, PVPA should still play a substantial role in the protection and propagation of current and future plant varieties. In order to do that, PVPA must remain relevant and effective. In order to strengthen the rights of plant breeders and maintain a farmer's ability to save seed for the land he or she farms and dispose of incidental amounts of seed, we support: (1) Strong intellectual property rights protection to allow seed developers the ability to recover the costs of research and development of seeds, while abiding by all antitrust laws;

Lines 27-29: We support (5) Maintaining the international and domestic gene/germplasm banks/stores. These should remain easily accessible to the public; (6) Continued plant variety research in the public sector.