PEER REVIEWED
TECHNICAL PUBLICATIONS ON THE FOOD, FEED ENVIRONMENTAL SAFETY, AND IMPACTS OF BOLLGARD® COTTON 531 AND BOLLGARD® II COTTON15985

Food Safety

Berberich, S., Ream, J., Jackson, T., Wood, R., Stipanovic, R., Harvey, P., Patzer, S., Fuchs, R. 1996. Assessment of Insect-Protected Cotton: The Composition of Insect-Protected Cottonseed Is Equivalent to That of Conventional Cottonseed. Journal of Agricultural and Food Chemistry. 44(1): 365-371.

Fuchs, R., Heeren, R., Gustafson, M., Rogan, G., Bartnicki, D., Leimgruber, R., Finn, R., Hershman, A., Berberich, S. 1993. Purification and Characterization of Microbially Expressed Neomycin Phosphotransferase II (NPTII) Protein and its Equivalence to the Plant Expressed Protein. Bio/Technology. 11(13): 1537-1542.

Fuchs, R., Ream, J., Hammond, B., Naylor, M., Leimgruber, R., Berberich, S. 1993. Safety Assessment of the Neomycin Phosphotransferase II (NPTII) Protein. Bio/Technology. 11(13): 1543-1547.

Goldstein, D., Tinland, B., Gilbertson, L., Staub, J., Bannon, G., Goodman, R., McCoy, R., Silvanoch, A. 2005. A Review - Human Safety and Genetically Modified Plants - A Review of Antibiotic Resistance Markers and Future Transformation Selection Technologies. Journal of Applied Microbiology. 99: 7-23.

Hamilton, K., Pyla, P., Breeze, M., Olson, T., Li, M., Robinson, E., Gallagher, S., Sorbet, R., Chen, Y. 2004. Bollgard® II Cotton: Compositional Analysis and Feeding Studies of Cottonseed from Insect-protected Cotton -Gossypium hirsutum L.- Producing the Cry1Ac and Cry2Ab2 Proteins. Journal of Agricultural and Food Chemistry. 52(23): 6969 - 6976.

Hofmann, C., Vanderbruggen, H., Hofte, H., Van Rie, J., Jansens, S., Van Mellaert, H. 1988. Specificity of Bacillus thuringiensis Delta - Endotoxins Is Correlated With the Presence of High-Affinity Binding Sites in the Brush Border Membrane of Target Insect Midguts. Proceedings of the National Academy of Sciences of the United States of America (PNAS). 85(21): 7844-7848.

MacIntosh, S., Stone, T., Sims, S., Hunst, P., Greenplate, J., Marrone, P., Perlak, F., Fischhoff, D., Fuchs, R. 1990. Specificity and Efficacy of Purified Bacillus thuringiensis Proteins Against Agronomically Important Insects. Journal of Invertebrate Pathology. 56(2): 258-266.

Sims, S., Berberich, S., Nida, D., Segalini, L., Leach, J., Ebert, C., Fuchs, R. 1996. Crop Physiology and Metabolism: Analysis of Expressed Proteins in Fiber Fractions from Insect-Protected and Glyphosate-tolerant Cotton Varieties. Crop Science. 5: 1212-1216.

PEER REVIEWED
TECHNICAL PUBLICATIONS ON THE FOOD, FEED ENVIRONMENTAL SAFETY, AND IMPACTS OF BOLLGARD® COTTON 531 AND BOLLGARD® II COTTON15985

Feed Safety

Castillo, A., Gallardo, M., Maciel, M., Giordano, J., Conti, G., Gaggiotti, M., Quaino, O., Gianni, C., Hartnell, G. 2004. Effects of Feeding Rations with Genetically Modified Whole Cottonseed to Lactating Dairy Cows. Journal of Dairy Science. 87: 1778-1785.

Elangovan, A., Mandal, A., Johri, T. 2003. Comparative Performance of Broilers Fed Diets Containing Processed Meals of Bt, Parental Non-Bt Line Or Commercial Cotton Seeds. Asian-Australian Journal of Animal Sciences. 16(1): 57-62.

Hamilton, K., Pyla, P., Breeze, M., Olson, T., Li, M., Robinson, E., Gallagher, S., Sorbet, R., Chen, Y. 2004. Bollgard II Cotton: Compositional Analysis and Feeding Studies of Cottonseed from Insect-protected Cotton -Gossypium hirsutum L.- Producing the Cry1Ac and Cry2Ab2 Proteins. Journal of Agricultural and Food Chemistry. 52(23): 6969 - 6976.

Hammond, B. 2004. A Review of the Food/feed Safety and Benefits of Bacillus thuringiensis Protein Containing Insect-protected Crops. ACS Symposium Series, 866 (Agricultural Biotechnology). 866: 103-123.

Kumar, R., Singhal, K. 2004. Chemical Composition and Nutritional Evaluation of Transgenic Cottonseed for Ruminants. Indian Journal of Animal Sciences. 74(8): 868 - 871.

Mandal, A., Elangovan, A., Shrivastav, A., Johri, A., Kaur, S., Johri, T. 2004. Comparison of Broiler Chicken Performance When Fed Diets Containing Meals of Bollgard® II Hybrid Cotton Containing Cry-x Gene(Cry1Ac and Cry2Ab Gene), Parental Line or Commercial Cotton. British Poultry Science. 45(5): 657-663.

Singh, M., Tiwari, D., Kumar, A., Kumar, M. 2003. Effect of Feeding Transgenic Cottonseed Vis-À-Vis Non-Transgenic Cottonseed on Haematobiochemical Constituents in Lactating Murrah Buffaloes. Asian-Australian Journal of Animal Science. 16(12):1732-1737.

Environmental Safety

Agi, A., Mahaffey, J., Bradley Jr., J., Van Duyn, J. 2001. Efficacy of Seed Mixes of Transgenic Bt and Nontransgenic Cotton against Bollworm, Helicoverpa zea Boddie. Journal of Cotton Science. 5: 74-80.

PEER REVIEWED
TECHNICAL PUBLICATIONS ON THE FOOD, FEED ENVIRONMENTAL SAFETY, AND IMPACTS OF BOLLGARD® COTTON 531 AND BOLLGARD® II COTTON15985

Betz, F., Hammond, B., Fuchs, R. 2000. Safety and Advantages of Bacillus thuringiensis-Protected Plants to Control Insect Pests. Regulatory Toxicology and Pharmacology. 32: 156-173.

Carriere, Y., Dennehy, T., Pedersen, B., Haller, S., Ellers-Kirk, C., Antilla, L., Liu, Y., Willott, E., Tabashnik, B. 2001. Large-Scale Management of Insect Resistance to Transgenic Cotton in Arizona: Can Transgenic Insecticidal Crops be Sustained? Journal of Economic Entomology. 94(2): 315-325.

Gore, J., Leonard, B., Jones, R. 2003. Influence of Agronomic Hosts on the Susceptibility of Helicoverpa zea (Boddie) (Lepidoptera : Noctuidae) to Genetically Engineered and Non-engineered Cottons. Environmental Entomology. 32 (1): 103-110.

Green, W., de Billot, M., Joffe, T., van Staden, L., Bennett-Nel, A., du Toit, C., van der Westhuizen, L. 2003. Indigenous Plants and Weeds on the Makhathini Flats as Refuge Hosts to Maintain Bollworm Population Susceptibility to Transgenic Cotton - Bollgard®. African Entomology. 11(1): 21-29.

Greenplate, J. 1999. Quantification of Bacillus thuringiensis Insect Control Protein CryIAc Over Time in Bollgard® Cotton Fruit and Terminals. Journal of Economic Entomology. 92(6): 1378-1383.

Halcomb, J., Benedict, J., Cook, B., Ring, D. 1996. Survival and Growth of Bollworm and Tobacco Budworm on Nontransgenic and Transgenic Cotton Expressing a CryIA Insecticidal Protein (Lepidoptera: Noctuidae). Environmental Entomology. 25(2): 250-255.

Head, G., Surber, J., Watson, J., Martin, J., Duan, J. 2002. No Detection of Cry1Ac Protein in Soil after Multiple Years of Transgenic Bt Cotton (Bollgard®) Use. Environmental Entomology. 31(1): 30-36.

Head, G., Moar, W., Eubanks, M., Freeman, B., Ruberson, J., Hagerty, A., Turnipseed, S. 2005. A Multiyear, Large-Scale Comparison of Arthropod Populations on Commercially Managed Bt and Non-Bt Cotton Fields. Environmental Entomology. 34(5): 1257-1266.

Li-xin, B., Long-Wa, Z., Xiao-Bo, C., Han-Jin, F. 2003. Composition and Diversity of the Weed Community in Transgenic Bt Cotton (Four Bollgard® Strains) Fields. Zhiwu Shengtai Xuebao. 27(5): 610-616.

Matten, S., and Reynolds, A. 2003. Current Resistance Management Requirements for B.t. Cotton in the United States. Journal of New Seeds. 5(2-3): 137-178.

PEER REVIEWED
TECHNICAL PUBLICATIONS ON THE FOOD, FEED ENVIRONMENTAL SAFETY, AND IMPACTS OF BOLLGARD® COTTON 531 AND BOLLGARD® II COTTON15985

Naranjo, S. 2005. Long-term Assessment of the Effects of Transgenic Bt Cotton on the Function of the Natural Enemy Community. Environmental Entomology. 34(5): 1211-1223.

Naranjo, S. 2005. Long-term Assessment of the Effects of Transgenic Bt Cotton on the Abundance of Nontarget Arthropod Natural Enemies. Environmental Entomology. 34(5): 1193-1210.

Naranjo, S., Head, G., Dively, G. 2005. Field Studies Assessing Arthropod Nontarget Effects in Bt Transgenic Crops: Introduction. Environmental Entomology. 34(5): 1178-1180.

O'Callaghan, M., Glare, T., Burgess, E., Malone, L. 2005. Effects of Plants Genetically Modified for Insect Resistance on Nontarget Organisms. Annual Review Entomology. 50: 271-282.

Romeis, J., Dutton, A., Bigler, F. 2004. Bacillus thuringiensis Toxin (Cry1Ab) has No Direct Effect on Larvae of the Green Lacewing Chrysoperla carnea (Stephens) (Neuroptera: Chrysopidae). Journal of Insect Physiology. 50(2-3): 175-183.

Ridley, W., Hartnell, G., and Hammond, B. 2004. Role of Composition and Animal Feeding Studies in the Safety Assessment of Biotech Crops. IN: *New Discoveries in Agrochemicals- Section 1. Biopesticides and Transgenic Crops.* Ohkawa, H. and Clark, J. M., editors; ACS Symposium Series; American Chemical Society: Washington, DC. ISBN 0-8412-3903-7.

Torres, J., Ruberson, J. 2005. Canopy- and Ground-Dwelling Predatory Arthropods in Commercial Bt and Non-Bt Cotton Fields - Patterns and Mechanisms. Environmental Entomology. 34(5): 1242-1256.

Whitehouse, M., Wilson, L., Fitt, G. 2005. A Comparison of Arthropod Communities in Transgenic Bt and Conventional Cotton in Australia. Environmental Entomology. 34(5): 1224-1241.

Wu, K., Guo, Y., Head, G. 2006. Resistance Monitoring of Helicoverpa armigera (Lepidoptera: Noctuidae) to Bt Insecticidal Protein During 2001–2004 in China. Journal of Economic Entomology. 99(3): 893–898.

PEER REVIEWED
TECHNICAL PUBLICATIONS ON THE FOOD, FEED ENVIRONMENTAL SAFETY, AND IMPACTS OF BOLLGARD® COTTON 531 AND BOLLGARD® II COTTON15985

Impacts

Bennett, R., Ismael, Y., Kambhampati, U., Morse, S. 2004. Economic Impact of Genetically Modified Cotton in India. Agbioforum. 7(3): 1-5.

Betz, F., Hammond, B., Fuchs, R. 2000. Safety and Advantages of Bacillus thuringiensis-Protected Plants to Control Insect Pests. Regulatory Toxicology and Pharmacology. 32: 156 - 173.

Brookes, G., Barfoot, P. 2005. GM Crops - The Global Economic and Environmental Impact - The First Nine Years 1996-2004. AgBioForum. 8(2-3): 187-196.

de Bianconi, M.G. 2003. Two Years of Insect Protected Bt Transgenic Cotton in Argentina - Regional Field Level Analysis of Financial Returns and Insecticide Use. Journal of New Seeds. 5(2-3): 223-235.

Edge, J., Benedict, J., Carroll, J., Reding, H. 2001. Bollgard® Cotton: An Assessment of Global Economic, Environmental and Social Benefits. Journal of Cotton Science. 5(2): 121-136.

Hossain, F., Pray, C., Lu, Y., Huang, J., Fan, C., Hu, R. 2004. Genetically Modified Cotton and Farmers' Health in China. International Journal of Occupational and Environmental Health. 10: 296-303.

Huang, J., Hu, R., Pray, C., Qiao, F., Rozelle, S. 2003. Biotechnology as an Alternative to Chemical Pesticides: A Case Study of Bt Cotton in China. Agricultural Economics. 29(1): 55 - 67.

Huesing, J., English, L. 2004. The Impact of Bt Crops on the Developing World. AgBioforum. 7(1-2): 84-95.

Pray, C., Huang, J., Hu, R., Rozelle, S. 2002. Five Years of Bt Cotton in China - the Benefits Continue. The Plant Journal. 31(4): 423-430.

Qaim, M., De Janvry, A. 2005. Bt Cotton and Pesticide Use in Argentina: Economic and Environmental Effects. Environment and Development Economics. 10: 179 - 200.

Traxler, G., Godoy-Avila, S. 2004. Transgenic Cotton in Mexico. AgBioForum. 7(1-2): 57-62.