Research Article

COST-EFFECTIVENESS OF AFLATOXIN CONTROL METHODS: ECONOMIC INCENTIVES

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Abstract

Multiple sectors within U.S. crop industries—growers, elevators, handlers/shell- ers, processors, distributors, and consumers—are affected by aflatoxin contamination of commodities, and have the potential to control it using methods developed at both the pre- and postharvest levels. While methods exist, adoption is low; thus, we seek to investiga ways to improve nomic incentive ethods; and (3) educ within a com sectors bear the brun l cottonseed growers tree nuts, shellers tree nut growers may have no economic incentive to apply preharvest aflatoxin control.

Postharvest control options are limited and in many cases are not yet approved by the EPA or FDA. The Kaldor-Hicks efficiency criterion may help to resolve this economic dilemma. If this criterion was to be applied to aflatoxin control in peanut and tree nuts, growers could be compensated by shellers/handlers to adopt preharvest aflatoxin control methods. However, the control methods must be cost-effective for this compensatory arrangement to work. We present three case studies of cost-effectiveness to reduce aflatoxin contamination in different crops: AF36 in cottonseed, Bt in corn, and Afla-Guard in peanuts.

Keywords: aflatoxin control methods | biocontrol | Bt corn | economic incentives | cost-effectiveness

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