

# General Mills, Inc.'s 2006 Strategy

## Strategic Approach

The PESP Strategy will incorporate General Mill's Cooperate Sustainability Initiative and the Integrated Pest Management Program. General Mills Sustainability Initiative will provide proactive, practical and profitable perspective to strengthen GMI's commitment to the wise and sustainable use of the natural resource systems that our business depends upon.

General Mills IPM program will work towards eliminating all detectable pesticide residues in finished products. General Mills will do this by agriculture research, and assisting suppliers, alliance partners, and co-packers with developing and implementing IPM practices.

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### Progress on 2005 Activity 1

*Research and implementation of biopesticides into production: This is a continuation of the 2004 strategy with a scaled back approach. We have had limited success with identifying companies and products. Priorities will be to identify biopesticides products, companies, and reliable, replicated trial efficacy data. General Mills Ag research will proactively seek out companies that will work cooperatively on research trials. We will include biopesticides in research trials in US and Irapuato, Mexico.*

This is an ongoing project. We continue to learn of new biopesticide providers. At this time, most products are still in research and evaluation phase. Implementation has been difficult. However we are committed to continue working on this objective in the future.

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### Progress on 2005 Activity 2

*Sweet corn insect control use reduction: We continue to find ways to reduce the amount of pyrethroid insecticide used in our sweet corn control program. Better education and information to pest control supervisors; application timings, moth trap data, and insecticide rate have all helped reduce total amount of insecticide use. Most recently, the addition of better cleaning equipment in the processing plants has given us the ability to further-reduce frequency of applications. Sweet corn insect control is a large program, so even small changes can result in significant pesticide application reductions.*

This has been successful and we have made some small gains, and reduced total number of applications at some processing plants. We are going to be focusing more attention to this area in the future.

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### **Progress on 2005 Activity 3**

*Elimination of Organophosphate insecticides in broccoli and cauliflower production: We have a very progressive IPM program for broccoli and cauliflower production. Conducting IPM trials and evaluating non-organophosphate insecticides, and working with registrants we can find alternative pesticides that will meet our needs. We established our baseline pesticide use from 2001-2004. We have the ability to work closely with the field staff making effective recommendations that minimize or eliminate use of organophosphate insecticides.*

This is a five year program, and have had some small success. I think the real pesticide reduction will come when we implement more not organophosphates and biopesticides into the system.

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### **Progress on 2005 Activity 4**

*Prepare an IPM program for the new strain of soybean rust that will be an issue for succulent green bean production. The detection of soybean rust in the continental US may result in increased fungicide use on snap beans. Scouting, fungicides, and thresholds for treatment will need to be determined during the coming months to prepare for soybean rust. A carefully crafted IPM plan can result in fewer fungicide applications.*

A successful strategy. We have worked with USDA, universities, and pesticide registrants to learn about Asian Soybean Rust. We now feel that we have programs in place and would be ready to implement IPM principles. Origin thought was blanket fungicide applications would be necessary, but we now know that would not be the case.

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### **Progress on 2005 Activity 5**

*Auditing will contribute to overall awareness of IPM principles and programs. It will document any progress that is made, and identify areas where more research is needed.*

We continue to monitor GAP analysis and audits. We are working with other food companies to determine value. Most value appears to come from raw product produced outside of the USA. This is an ongoing activity.

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## Activities for the Coming Year

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### Activity 1

Research and implementation of biopesticides into production: This is a continuation of the 2005 strategy. Priorities will be to identify biopesticides products, companies, and reliable, replicated trial efficacy data. General Mills Ag research will proactively seek out companies that will work cooperatively on research trials. We will include biopesticides in research trials in US and Irapuato, Mexico.

#### **How does this activity reduce pesticide risk?**

Biopesticides can reduce or replace traditional pesticide applications.

#### **How will you measure the risk reduction gained from this activity?**

Pesticide application records are available for all acres contracted for Green Giant production. We can review pesticide application records to evaluate biopesticide usage and evaluate replacement/substitution opportunities.

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### Activity 2

Sweet corn insecticide use reduction: We will conduct a major review of corn earworm (*Heliothis zea*) control in all sweet corn processing plants in 2006. Corn earworm has documented resistance to the pyrethroid class of insecticides. The past several years we have noticed in our production fields, a decline in corn earworm control. Our objectives is to do a thorough evaluation of resistance and insect control to determine what level of decreased control we can tolerate in processing plants and yet produce high quality finished consumer goods. It is believed that better processing equipment may allow us to reduce insecticide sprays for corn earworm. We will be working closely with the University of Minnesota Entomology department on this project. We will be utilizing additional pheromone traps to monitor corn earworm populations. We will participate in an Adult Vial Test to verify resistance of adult moths. We will participate in an insecticide efficacy trial evaluating pyrethroid and alternatives to control corn earworm.

We believe that we can make significant reduction in our corn earworm insect control program. This is based on better cleaning equipment in the processing plants. Sweet corn insect control is a large program, so even small changes can result in significant pesticide application reductions

**How does this activity reduce pesticide risk?**

Fewer insecticide applications and lower insecticide use rates should all contribute to reduced environmental risk.

**How will you measure the risk reduction gained from this activity?**

Each year a final survey of pesticide applications and amount of active ingredient (a.i) applied is conducted. We can compare across years to measure any reductions in pesticide usage and compare to sustained or improved crop quality parameters.

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**Activity 3**

Elimination of Organophosphate insecticides in broccoli and cauliflower production: This is a five year project initiated in 2005 and is expected to run through 2010. Our goal is to reduce organophosphate insecticides by 15% during this time. We have a very progressive IPM program for broccoli and cauliflower production. Conducting IPM trials and evaluating non-organophosphate insecticides, and working with registrants we can find alternative pesticides that will meet our needs. We established our baseline pesticide use from 2001-2004. We have the ability to work closely with the field staff making effective recommendations that minimize or eliminate use of organophosphate insecticides.

**How does this activity reduce pesticide risk?**

It is generally recognized that by reducing organophosphate insecticides from spray programs we can reduce environmental risk.

**How will you measure the risk reduction gained from this activity?**

Each year a final survey of pesticide applications and amount of a.i applied can be evaluated to monitor our progress and identify opportunities for further reductions.

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**Activity 4**

Incorporate sustainable agriculture practices into broccoli and cauliflower production. The objective of this activity is a holistic approach to all aspects of broccoli and cauliflower production. We are incorporating concepts from organic AND traditional agriculture to reach our activity goals. The goal is to make growers aware of environmental sustainable practices. We will increase use of organic matter, composted animal manures, and develop habitats that support beneficial insects. We will work with growers to demonstrate the value of crop rotations. We are working with suppliers of

biopesticides and determining where they have a fit in production. We are conducting research trials and offering demonstration plot tours to growers to show benefits of environmental and sustainable approaches to crop production. We also pl

**How does this activity reduce pesticide risk?**

We are not sure at this time what impact this will have on pesticide use. Pesticide use reduction may come in the form of more beneficial insects or increased use of biopesticides.

**How will you measure the risk reduction gained from this activity?**

This will be difficult to measure and will probably take several years to see outcomes. We can evaluate application records to determine our success.

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**Activity 5**

Awareness of sustainable and good agriculture practices will increase IPM adoption.

**How does this activity reduce pesticide risk?**

Implement GAP programs and determine value that meets the needs of consumers. We will continue to monitor and develop internal GAP (good agriculture practices) procedures for both internal and external suppliers.

**How will you measure the risk reduction gained from this activity?**

Measurement will be difficult. Working with other food processors we hope to have an understanding of the scope of GAP programs.