# Summer 2003

# Summer's Bounty: Beyond the Basics

### During this session you will:

- Discuss frequently asked questions about plant biotechnology.
- Bring to mind the pleasures of summer fruits and vegetables.

• Experience and sample summer fruits and vegetables.



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### **Next Steps Follow-Up**

At the Spring 2003 session, we talked about the trend toward larger portions in the American food supply and how this could be influencing how much we eat. We also talked about strategies to increase awareness of WHI standard servings.

- If you worked on changing the portions of food you eat, what kinds of changes did you make?
- How did changing your portions help you meet your WHI fat gram goal?

# In This Session....

his session brings new information to a familiar WHI topic – fruits and vegetables. The first half of the session gives a brief introduction to plant biotechnology. In the second half of the session, we look at the pleasures of summer's fruits and vegetables.

What's in a name? There are many different names for the process of selectively using genes to give new traits. In this session, we use 'biotechnology' or 'biotech.' The words 'genetic engineering' or 'genetic modification' are also used. In general, these are different words to describe the same process.

# Plant Biotechnology

hat is plant biotechnology? Plant biotechnology is a selective way to give a plant a new trait by giving it the genetic blueprint (gene) for the desired trait. For example, plant biotechnology has created a type of corn (called Bt corn) that makes its own pesticide. This was done by giving a corn plant a gene for making pesticide.



### How is modern plant biotechnology different from traditional plant crossbreeding? There are two main differences:

- Plant biotechnology makes it possible for non-plant traits to be given to plants. That is, the gene for a new trait can come from another plant, or an animal, or a microbe. In the corn example on the previous page, the gene for making pesticide came from a microbe. In traditional plant crossbreeding, the gene for a new trait can come only from another plant.
- Plant biotechnology is faster and more precise than traditional plant crossbreeding. That is, a plant can be given a new trait in one step – by moving just one gene at a time. With traditional plant crossbreeding, it takes many steps (sometimes taking years) to give a plant a new trait.

# How is plant biotechnology used today?

Plant biotechnology is used in agriculture. The first biotech crops were planted in the mid-1990s. So far, the most widely planted crops have traits that make them better able to fight pests (such as insects, diseases, and weeds). Other biotech crops have traits that improve their taste or quality. The box above shows some examples of current and future uses for plant biotechnology.

### **Biotech Crops – Some Examples:**

#### Current uses:

- corn and cotton that resist insects
- canola, corn, cotton, and soybeans that tolerate herbicides
- papaya and squash that resist viruses

### Future uses:

- peas that are sweeter
- bananas and pineapples that ripen more slowly
- rice enriched with vitamin A that may reduce blindness in developing countries

# How are biotech plants tested for safety?

Biotech plants are tested before they're grown for consumers. They are field tested outdoors for several seasons to see if only the intended changes have been made to the plant. Biotech plants are also tested to see if:

- the levels of nutrients or expected toxins have changed,
- the proteins have properties showing that they might cause allergies.



### How are biotech plants regulated?

The Food and Drug Administration (FDA) oversees the safety and labeling of biotech foods using a system where companies voluntarily submit safetytesting data to the FDA for review. The U.S. Department of Agriculture (USDA) and Environmental Protection Agency (EPA) are also involved in biotechnology regulation.

Biotechnology testing and regulation aims to see that biotech plants pose no additional risks to the environment or humans than traditional plant varieties.

# How do people feel about plant biotechnology?

Not everyone feels the same way about plant biotechnology. For example, there are differences of opinion about how much risk there is for biotech plants to interact with the environment and humans in unintended ways. Some feel that the risk is high, while others feel that the risk is low. Still others feel that the risk is somewhere in between. The debate is often about whether things that 'could' happen will turn out to be things that 'do' happen. Some of the debates are:

- whether or not weeds will become resistant to pesticides if they're grown near biotech plants that protect themselves from weeds,
- whether or not good insects will be harmed if they come in contact with biotech plants that protect themselves from insects,
- whether or not biotech plants will cause allergies in humans.

Related to these differences of opinion, we may also hear debate about whether plant biotechnology should have more government regulation.

### Where do we go from here?

Scientists have learned a lot about plant biotechnology, but there is still much to learn. As with any science, we will hear about new discoveries as well as more differences of opinion. We hope you find this brief introduction useful as you continue to hear and learn about advances in plant biotechnology.

- What do you now know about plant biotechnology that you didn't know before this session?
- What questions or concerns, if any, do you have about plant biotech-nology?

If you would like to learn more about plant biotechnology, your WHI nutritionist can give you some ideas about where to look for more information.



# Beyond Taste–Finding Pleasure in Summer's Bounty

hen we think about why we like fruits and vegetables, taste might be one of the first things that comes to mind. Taste is important, but it probably isn't the only reason we enjoy fruits and vegetables in summer. When was the last time you thought about the nontaste pleasures of summertime fruits and vegetables? If you've never thought about fruits and vegetables this way, or if it has been awhile, consider having some fun giving this kind of thinking a try.

It might be helpful to close your eyes and think of fond summertime memories:

- What is your favorite memory of summer fruits and vegetables?
- What makes this a special memory for you?
- What non-taste pleasures of fruits and vegetables do you see in this memory?

The box below shows some non-taste pleasures of summer fruits and vegetables.

### Some non-taste pleasures of summer's bounty:

- the beauty of the summer yard landscaped with a vegetable garden;
- the joy of growing and picking fresh fruits and vegetables from the garden;
- the sense of community felt when visiting the local farmer's market or roadside stand;
- the sound of picking snap peas off the vine;
- the smell of a ripe peach or the smell of a tomato vine;
- the vibrant colors of summer produce in the garden or market;
- the warmth that comes from a fond memory of summer fruits and vegetables;
- the exhilaration of watching a child or grandchild taste their first strawberry from the garden;
- the ease of preparing a simple summer supper.



Now that you've thought of some non-taste pleasures from memories, take a moment to think about today:

- Which summer fruits and vegetables are your favorites today?
- What non-taste pleasures do you find in these fruits and vegetables?
- How does it make you feel to think about these pleasures?

There are all kinds of pleasures to be found in summertime fruits and vegetables. Perhaps you've rediscovered some pleasures you hadn't thought about for awhile. Or, maybe you found some hidden pleasures you didn't know were there for you.

### New ideas for summer's bounty.

One way to continue finding pleasure, is to try new things. Can you think of a new idea for enjoying summer fruits and vegetables? All you need is one idea! Look at the fruits and vegetables in the box below.

- Are there any summertime fruits and vegetables that you've never eaten? If yes, which ones?
- Are there ways that you could prepare or serve a favorite summertime fruit or vegetable that would be new for you? If yes, what could you do?

#### **Summer's Bounty**

Fruits		Vegetables	
Apricots Berries Figs Lemons & Limes Mangoes	Melons Nectarines Papayas Peaches Plums	Beans, snap Beets (and greens) Celery Chili Peppers Corn Cucumbers Greens, salad Eggplant	Mushrooms Okra Onions Peas, snow Peppers Potatoes Squash, summer Tomatoes

# Next Steps

f you have a new idea for enjoying summer fruits and vegetables, good for you! Think about what you might do. Then, consider giving your idea a try. There might be a new pleasure waiting for you!

### **Questions for Thought**

- How might you use this session to help you enjoy summertime fruits and vegetables?
- What summertime fruits and vegetables might you consider trying or using more often?

How could you make this happen?



# Overnight Spinach Salad

1 can (15 oz.) black beans, rinsed and drained
 1/2 cup snipped dried apricots
 1 cup chopped red pepper
 2 green onions, thinly sliced
 2 tablespoons snipped fresh cilantro
 1 clove garlic, minced
 1/4 cup apricot nectar
 1 tablespoon olive oil
 2 tablespoons seasoned rice vinegar
 1 teaspoon soy sauce
 1 teaspoon freshly grated ginger
 6 cups finely sliced fresh spinach

In a medium mixing bowl, combine beans, sweet pepper, green onion, cilantro and garlic. In a screw-top jar combine apricot nectar, oil, vinegar, soy sauce and ginger. Pour over bean mixture and toss gently to coat. Cover and refrigerate 12-24 hours for flavors to blend. To serve, toss with spinach.

Makes 4 main dish servings, or 8 side salads.

### Main dish:

Fat: 5 grams per serving

Fruits/Vegetables servings: 3 per serving

Grain servings: 1 per serving

<u>Side Salad</u>:

Fat: 2.5 grams per serving

Fruits/Vegetables servings: 1.5 per serving

Grain servings: 0.5 per serving

Adapted from *Better Homes and Gardens* magazine. Submitted by Nevada WHI Clinical Center

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# Corn and Roasted Pepper Salad

Use any combination of red, orange, and green peppers in this zesty salad.

2 cups fresh corn kernels, uncooked (about 4 ears)
1 cup chopped roasted bell peppers (packed in water, drained)
2/3 cup chopped seeded plum tomato
1/4 cup minced shallots
2 tablespoons finely chopped fresh parsley
2 teaspoons minced seeded jalapeno pepper
1/2 teaspoon grated lime rind
2 tablespoons fresh lime juice
2 teaspoons olive oil
1/2 teaspoon salt

1/8 teaspoon black pepper

Combine first 6 ingredients in a large bowl. Combine remaining ingredients in a small bowl, stirring with a whisk. Drizzle lime juice mixture over corn mixture, and toss well. Makes 6 servings (serving size: 1/2 cup salad)

Fat: 2 grams per serving

Fruit/Vegetable serving: 1 per serving

Adapted from *Cooking Light* Magazine. Submitted by Pawtucket WHI Clinical Center