

Summer 2003 (9SU):

Summer's Bounty: Beyond the Basics **Nutritionist Note:** This session provides an opportunity to stimulate participant interest in continued WHI group session attendance and inspire participants to find pleasure in summertime fruits and vegetables. The session provides an opportunity for the participant to do the following: a) discuss a topic of expressed interest -- plant biotechnology/genetically modified foods, b) bring to mind the pleasures of summer fruits and vegetables, and c) experience and sample summer fruits and vegetables.

Nutritionist Guidelines

Time:	~120 minutes
WHILMA:	Enter session in WHILMA as: 9SU
Objectives: (Key Points)	 In this session, the participant 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.
Materials:	 Self-monitoring tools Set of frequently asked questions for the <i>Plant Biotechnology/Genetically Modified Foods</i> segment. See Step 1 on page 7 of these materials. Optional: Illustrate the common presence of biotech foods in the marketplace by displaying foods that contain ingredients from soybeans, cotton, canola, and corn (i.e., the current most widely planted biotech crops). Examples: foods containing soybean oil, corn oil, corn syrup, etc. Foods and supplies for the <i>New Ideas for Summer's Bounty</i> segment. See pages 11-12 of these materials.

Summer - 2

Other WHI Resources Related to Session:

- Spring 2000 High Five for Health
- Session 7 Tracking Fruits and Vegetables

Optional Nutritionist Background Reading:

- 1. Food Biotechnology Overview (March 2002). See http://ific.org/proactive/newsroom/release.vtml?id=18620.
- Food Biotechnology: Enhancing Our Food Supply (September 2000). See <u>http://ific.org/proactive/newsroom/release.vtml?id=18327</u>.
- 3. Are Bioengineered Foods Safe? (January/February 2000). See http://www.fda.gov/fdac/features/2000/100_bio.html.
- 4. Genetically Engineered Foods Are They Safe? (November 2001). *Nutrition Action Health Letter*, Volume 28/Number 9.
- Plant Biotechnology: Current and Potential Impact for Improving Pest Management in U.S. Agriculture

 An Analysis of 40 Case Studies (June 2002). See http://ncfap.org/40CaseStudies.htm.
- 6. Lurquin, P.F. 2002. High Tech Harvest. Boulder, Colorado: Westview Press.
- 7. What Does "GMO-Free" on Food Labels Really Mean? (June 2001). *Environmental Nutrition*, Volume 24/Number 26.
- 8. CDC Report to FDA: Investigation of human illness associated with potential exposure to Cry9c (2001). See http://www.cdc.gov/nceh/ehhe/Cry9cReport/cry9creport.pdf.
- 9. Support for Food Biotechnology Holds with Increased Recognition of Benefits (September 2002). See http://ific.org/proactive/newsroom/release.vtml?id=19981.
- 10. Greger, J.L. Biotechnology: Mobilizing dietitians to be a resource. J. Amer. Diet. Assoc. 2000; 100: 1306-1308.
- 11. Babcock, B.C., Francis, C. Solving global nutrition challenges requires more than new biotechnologies. J. Amer. Diet. Assoc. 2000; 100: 1308-1311.
- 12. McCullum, C., Food Biotechnology in the new millennium: Promises, realities, and challenges. J. Amer. Diet. Assoc. 2000; 100: 1311-1315.
- 13. Position of the American Dietetic Association: Biotechnology and the future of food. *J. Amer. Diet. Assoc.* 95; 95: 1429-1432.

Optional Participant Resources (examples):

- 1. Agricultural Biotechnology: Myths & Facts (Revised October 2001). See http://ific.org/proactive/newsroom/release.vtml?id=18024.
- 2. Food Biotechnology: Enhancing Our Food Supply (September 2000). See http://ific.org/proactive/newsroom/release.vtml?id=18327.

Peer Group Ideas:

Here are a few suggestions for peer group activities/topics to follow-up on the Summer 2003 session topic:

- *Farmer's Market* Take a trip to the local farmer's market. Sample new fruits and vegetables. Ask the farmer to tell you how to use and prepare what they're selling.
- *Show-off Your Garden:* Meet at the home of a group member who has a summer garden. Plan a potluck centered around what she grows in her garden. For example, if she grows tomatoes and cucumbers, plan a potluck where you make a large salad. The hostess can provide the tomatoes and cucumbers and others can bring the rest (e.g., lettuce, dressing, bread, etc.).

Summer 2003: Summer's Bounty – Beyond the Basics (Facilitation Outline)

	GROUP SHARING/NEXT STEPS FOLLOW-UP (~15 minutes)
	Objective:Participants share with other group members how they applied skills practiced in the Spring 2003 session.Purpose:Build group cohesion and participant self-efficacy.
	 A. Group Sharing: Introduce guests from other groups and offer to provide a brief update on absent participants. Provide support and recognition of peer group activities and promote interest: During the past 3 months what types of activities have you done with other members of WHI? What activities might you consider for your next meeting?
	 B. Next Steps Follow-up: Very briefly recap the discussion from the Spring session. Help participants discuss portion super-sizing. <u>Q/A:</u> (sample question) If you worked on reducing (or increasing) the portions of food you eat, what kinds of changes did you make? How did reducing (or increasing) your portions help you meet your WHI fat gram goal? Reflect and summarize.
78 8 87	 Group Facilitation Suggestions and Examples: Help participants think about and verbalize how they applied the skills practiced during the previous session: Last session, we talked about how portion sizes are getting bigger and bigger all the time and how being careful with portions can be important for meeting fat gram goal. If you made changes in portions, what kinds of changes did you make? Point out common threads within the group by summarizing: Alice, Joy, and Sally mentioned that they focused on reducing their portions and that they had to work at it. Use a 'who else' question: Who else experienced needing to put some effort into reducing portions? Who else would like to share recent experiences with portion sizes?

06/01/03

SETTING THE STAGE for SKILL BUILDING (~ 5 minutes)
Nutritionist Note:The Skill Building component of this session includes three segments: a) PlantBiotechnology/Genetically Engineered Foods; b) Pleasures of Summer's Bounty; c) New Ideasfor Summer's Bounty.Ideally, participants will experience all three segments – with the amount of time for eachsegment determined by participant interest. Some groups might opt to experience the SkillBuilding component as designed (i.e., ~1/3 of the time for plant biotechnology/geneticallymodified foods and ~2/3 of the time for summertime fruits and vegetables). Other groupsmight opt to spend more time on plant biotechnology and less time on summertime fruits andvegetables.The nutritionist's role at this point in the session is to assess participants' relative interest inthe three segments so the Skill Building component can be tailored to the group's interest.Assessing relative interest in the segments enables the nutritionist to acknowledge and supportparticipant interest while providing participants the opportunity to experience all threesegments.
 A. Set the Stage for Skill Building. Begin by briefly introducing the topic. Key point: This session provides an opportunity to bring new information, discussion, and enthusiasm to a familiar WHI topic – fruits and vegetables. Because we've talked many times in past sessions about the nutritional importance of fruits and vegetables, this session aims to focus on different topics related to fruits and vegetables. Describe plan for Skill Building component: The first segment provides a chance to discuss a bit about science, technology, and our food supply. The second segment gives some time to think about the pleasures of summer fruits and vegetables. The third segment provides an opportunity to experience something new about summer fruits and vegetables.
 B. Assess Relative Interest in Skill Building Segments. Find out which segment (or segments) of the Skill Building component participants are most interested in by asking them to briefly share what they're most looking forward to in the discussion. <u>QA:</u> (sample question) ➡ What segment (or segments) are you looking forward to most? C. Emphasize Personal Choice. Mention that each person has to decide what is important for them and how they might use the information discussed in the session.



Group Facilitation Suggestions and Examples:

Set the stage and assess relative interest in the Skill Building segments:

• For today's session, I've come prepared to talk about all three of the segments I described. I'm thinking we could spend about 25 minutes talking about what's new with science and technology (plant biotechnology/genetically modified foods) and the rest of the time talking summertime fruits and vegetables (pleasures and new ideas). How does this mix of time and topics sound to you?

	SKILL BUILDING (~85 minutes)		
~25 minutes	1. Plant Bio	technology/Genetically Modified Foods	
	Objective:	Discuss frequently asked questions about plant biotechnology/genetically modified foods.	
	Purpose:	Stimulate participant interest in continued WHI group session attendance and participation.	
	Nutritionist N	Note:	
	The overall in attendance and have expressed	tent of this ~25 minute segment is to spark interest in continued session d participation by engaging participants in <u>discussion</u> about a topic in which they d interest – plant biotechnology/genetically modified foods.	
	This segment express thoug to answer all participants t to facilitate an didactic lectur plant biotechn	provides an opportunity for participants to build basic knowledge and ghts and opinions about plant biotechnology. This segment is not intended questions about plant biotechnology, nor is it intended to persuade to form certain opinions about plant biotechnology. The nutritionist's role is interesting, informative, and balanced discussion. This is not intended to be a re-type presentation. There is no expectation that the nutritionist be an expert in ology in order to successfully facilitate this discussion.	
	Nutritionist Resource 1 – Plant Biotechnology/Genetically Modified Foods – Backge Nutritionists provides supporting information for discussing frequently asked question plant biotechnology.		
	• Use partic	ipant interest to determine which questions to discuss.	
	• The <u>numb</u> be determ summer fr	er of questions to discuss may vary from group to group at your center and will ined by participants' relative interest in the biotechnology topic relative to the uits and vegetables topic.	
	• The <u>methor</u> interests a participan through ar more struc	od of delivery for the biotechnology segment will also be determined by the nd needs of participants at your center. Use a method that is interesting for your ts. For example, some CCs may find that participants prefer to cover this topic n informal discussion, while other CCs may find that their participants prefer a ctured activity (e.g., a game or activity). Do what works for your participants.	
	Food for Tho	ught:	
	As you prepar opinions, and the following	e for this session, take some time to think about your own knowledge, thoughts, emotions about plant biotechnology/genetically modified foods. Ask yourself questions:	
	• How migh facilitate t	t what I know, what I believe, and what I feel about this topic influence how I this discussion?	
	• How migh interesting persuade	et I use what I know about myself to help me facilitate a discussion that is g, informative, balanced, and does not set out to answer all questions and/or opinion?	
	Have some fur	n challenging yourself with these 'food for thought' questions!	

A. Plant Biotechnology/Genetically Modified Foods

- Engage participants in a discussion about plant biotechnology/genetically modified foods.
 - Consider opening the discussion by sharing that the purpose of the discussion is to help participants: a) receive a bit of new information, b) share and acknowledge thoughts, and c) feel empowered and inspired to continue learning about the topic. Share with participants that swaying opinion about plant biotechnology/genetically modified foods is not a purpose of this discussion.
- Reflect and summarize participant comments throughout the discussion.
 - Encourage and support participants' deeper involvement in the discussion by inviting them to participate in summarizing throughout the discussion.

Delivery Idea:

Use the delivery idea below, or develop your own. Choose a method that best meets the needs and interests of your participants.

Idea: Generate discussion using frequently asked questions.

Step 1: Begin with a set of frequently asked questions.

- □ If your participants <u>are</u> familiar with plant biotechnology, consider starting with open questions as shown in *Nutritionist Resource 1* (or locally developed questions).
 - Jot the questions you're prepared to discuss on the board (or overhead).
- □ If your participants <u>are not</u> familiar with plant biotechnology, consider starting with narrowly focused questions as shown in the *Sample Handout Plant Biotechnology*.
 - Have participants complete the handout (individually or in pairs) to help them begin thinking about what they know and think about plant biotechnology.

Step 2: Ask participants if they have additional questions they'd like to discuss.

• If yes, jot these on the board (or overhead).

Step 3: Have the group select which question(s) they would like to discuss.

Step 4: Facilitate a discussion of the questions the group chooses.

For each question:

• Invite participants to share their ideas for a response to the question and encourage others to add their ideas.

<u>QA</u> (sample questions):

- ► Who would like tell us what you know about ____ [*insert question*]?
- ► What would others like to add to this?
- ► What questions or concerns, if any, does this bring up for you?
- After participants have shared their ideas:
 - Reflect and summarize their comments (encouraging participants to summarize also).
 - Provide supporting information, only if needed, using information from *Nutritionist Resource 1*.

Continued on next page.

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Group Facilitation Suggestions and Examples:

Reflect and summarize:

- Thank you, Midge, for sharing your thoughts about this question. For you, _____ and ____ are most important. What would others like to add?
- Linda, it sounds like _____ is concerning for you. What about _____ troubles you? [Participant response.] Who else feels this way? [Participant response(s).] Who feels otherwise? [Participant response(s).] How might one find out more about this issue? [Participant response(s).]

Step 5: If participants have expressed interest in learning more about biotechnology, offer a short list of sources where they might find additional information. See *Optional Participant Resources* (page 2 of these materials) for ideas.

Step 6: Facilitate a summary, next steps, and transition to the next segment.

• Invite participants to summarize the discussion and share how they might use the information.

<u>QA:</u> (sample questions)

- What do you now know about plant biotechnology that you didn't know before today's discussion?
- ► For those interested in learning more about plant biotechnology, how might you go about finding additional information?
- Reflect and summarize participant responses.
- Transition to the next segment by asking participants if they're ready to 'switch gears' and move forward to the topic of summer fruits and vegetables.

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Group Facilitation Suggestions and Examples:

Summarize:

• Before we move on to the next part of the session, let's take a minute to summarize. Who would like to share something that you learned from today's discussion? What about others?

Next Steps:

• It sounds like many of you learned something about plant biotechnology that you didn't know before today. For those of you interested in learning even more, how might you go about finding additional information?

Transition:

• We've shared a lot with each other during this discussion. Thank you for offering your knowledge, thoughts, and feelings about plant biotechnology. The rest of today's session focuses on a 'lighter' topic – the bounty of summer. Are you ready to move on to the next part of the session and talk about summer fruits and vegetables?

~15 minutes	2. The Pleasures of Summer's Bounty
	Objective: Bring to mind the pleasures of summer fruits and vegetables.
	<u>Purpose:</u> Inspire participants to find pleasure in eating summer fruits and vegetables.
	Nutritionist Note:
	This segment provides an opportunity for participants to think about the summer fruits and vegetables they enjoy most and why they enjoy them. The intent of this segment is simply to <u>inspire participants to find pleasure</u> in eating summer fruits and vegetables.
	This segment focuses on helping participants think about and recognize pleasure that comes from positive thoughts and feelings associated with summer fruits and vegetables. As participants respond to the discussion questions (see below), encourage them to think about more than taste and/or flavor. Challenge them to think about 'what else' makes the fruit or vegetable enjoyable and/or their favorite. Encourage participants to have fun with this and invite them to find 'hidden' pleasures that might not be readily apparent. Below are just a few examples of pleasures participants might find in summer fruits and vegetables:
	 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.
	Use this brief discussion to help participants feel inspired to find pleasure in summer fruits and vegetables.

A. Set the stage for discussion:

- Create an atmosphere that helps participants bring to mind <u>positive feelings</u> about summer fruits and vegetables. <u>An idea for how this might be done:</u>
 - Ask participants to close their eyes and take just a few minutes to think back to fond memories of summertime (e.g., being outdoors, picnics, seeing stars at night, etc.).
 - While they're thinking about these warm-hearted memories, ask them to search for their favorite memory of summer fruits and vegetables. It might be helpful for the nutritionist to share an example from her experience (e.g., *I can remember playing as a child in my uncle's corn field...the smell was so wonderful...the stalks were above my head....we used to play hide-n-seek for hours and hours....I loved those summer days spent on the farm....I didn't have a care in the world).*
 - Encourage participants to briefly share their positive memory and what makes it special.
- Reflect and briefly summarize participant comments. Emphasize the positive feelings participants express.

B. Beyond taste – finding pleasure in summer fruits and vegetables:

- Continue the discussion started immediately above by transitioning from thoughts about the past to thoughts about the present.
- Use the questions below, or develop your own. As mentioned in the Group Nutritionist Note above, encourage participants to have fun with this and to think about 'what else besides taste' of fruits and vegetables gives pleasure.

<u>QA:</u> (sample questions)

- ► 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?
- Reflect and summarize participant comments. Emphasize the positive feelings participants express.

Group Facilitation Suggestions and Examples:

Reflect and summarize, point out common 'threads' within the group:

- It sounds like several of you find all kinds of pleasure in summer fruits and vegetables. Some of you mentioned taking pleasure in the flavor and smell of summer fruits and vegetables. Others mentioned different pleasures: memories they evoke; outdoor activity they create – working in the garden or visiting the local market; feelings they inspire. What about the rest of you?
- My impression is that some of you are a bit surprised by the many pleasures you were able to identify. For some of you, this is a new way of thinking about summer fruits and vegetables. I'm hearing a lot of joy in the comments you're sharing.

3. New Ideas for Summer's Bounty ~45 minutes Objective: Sample and experience summer fruits and vegetables. Help participants discover new ways to enjoy summer fruits and vegetables. Purpose: **Nutritionist Note:** This ~45 minute segment provides an opportunity for participants to experience (see/taste/discuss) something new about summer fruits and vegetables. The intent of this segment is to give participants new ideas for enjoying summer fruits and vegetables, after having been inspired in the previous segment. Use your knowledge of participants at your center to determine what might be new and interesting for them. As much as possible, have this be an interactive, hands-on segment. A. Hands-on Experience Create an activity that provides an opportunity for participants to see/taste/discuss something new about summer fruits and vegetables. Nutritionist Resource 2 and the ideas below provide some ideas to get you started – have fun with this and unleash your own creative ideas. A few general ideas about how an activity might be **focused**: Idea 1: Create an activity centered around <u>unfamiliar</u> summer fruits or vegetables. Idea 2: Create an activity centered around familiar summer fruits or vegetable prepared or presented in a new way. Idea 3: Create an activity that combines Idea 1 and Idea 2. A few general ideas about how the activity might be **structured**: Idea A -- for clinics with facilities that accommodate participant involvement in food preparation: a) use a demo to introduce participants to an unfamiliar item and/or new preparation/presentation for a familiar item, b) provide an opportunity to taste the item, and then c) provide an opportunity for participants to practice using the item or preparation/presentation by preparing and tasting simple dishes during the session. Because of the time required for the food prep component, it might work well to focus on only one fruit/vegetable or preparation/presentation method. The overall goal would be experience by using the item and/or preparation/presentation method. Example: a) provide a simple demo that focuses on heirloom tomatoes, b) provide an opportunity to taste the different heirloom tomatoes in your demo, and c) provide an opportunity for participants to practice using the heirloom tomatoes by having them prepare and taste simple dishes using the tomatoes (e.g., a slice of tomato and a basil leaf atop a slice of crusty bread; tomato sauce that requires no cooking; fresh salsa; homemade V-8 juice in the blender, etc.).

A. Hands-on Experience (cont.)

A few general ideas about how the activity might be **structured** (cont.):

Idea B -- for clinics that cannot accommodate participant involvement in food preparation: a) use a demo to introduce participants to a number of unfamiliar items and/or new preparation/presentation for familiar items and then b) provide an opportunity to taste and discuss the items in the demo. Because time will not be needed for a food prep component during the session, it might work well to focus on a number of fruit/vegetables or preparation/presentations. The overall goal would be <u>experience by</u> tasting the items and/or preparation/presentation method.

Example: Have a demo and tasting that focuses on fresh salsa. Include as many fresh salsas as you can think of – use unfamiliar as well as familiar fruits and vegetables (e.g., red and green tomatoes, mango, papaya, cucumber, raspberries, etc.). Demo the salsas as dips as well as sauces/toppings.

B. Discuss Hands-on Experience

- Have participants discuss the new items and/or preparation/presentation <u>throughout</u> the hands-on experience. Encourage participants to talk about 'what's new to them' and 'what they like about it':
 - If there are participants in the group who are familiar with what you've included in the activity, invite them to share their previous experience and expertise with the other group members.
- Reflect participant comments throughout the discussion.
 - **<u>QA</u>**: (sample questions)
 - What do you think about ___ [insert item name and/or description of preparation/presentation]?
 - ► What do you find most appealing about ___?
 - ► Is there anything you don't like about ___? If yes, what might that be?
 - ► What other ways have you used ____?
 - ► How else might you use ____?
- Summarize participant comments and then move directly to the Next Steps component to have participants share how they might use what was discussed in today's session.

Group Facilitation Suggestions and Examples:

Summarize participant comments or ask group members to summarize:

• Would someone from the group like to re-cap the comments we've heard?

Acknowledge those who contributed to the summary and add your contributions as needed.

• Joyce – that was an excellent summary. Thank you. It sounds like this activity gave many of you the chance to experience something new about summertime fruits and vegetables. Would anyone else like to add to Joyce's summary before we move on to talk about how this experience and discussion might increase your enjoyment of summertime fruits and vegetables?

		NEXT STEPS (~15 minutes)
	Objective:	Participants share with group members how they might use the session discussion and experience to increase their enjoyment of summertime fruits and vegetables.
	Purpose:	Increase likelihood that the participant will apply session information and skills to support WHI goals.
	A. Sharing	g
	• Use ope discussi	en-ended questions to have participants share how they might apply the session ion and experience.
	<u>Q/A</u> : (sample questions) How might you use what we talked about today 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?
788887 878888	Group Fac Reflect and • I am he	ilitation Suggestions and Examples: summarize, point out common 'threads' within the group: aring some similarities among all of you.
	Support self	f-efficacy: nany of you saying that you can
	Reflect chan PPT: NUT:	nge talk: There's more to summertime fruits and vegetables than nutrients. I want to remember that. You want to eat fruits and vegetables for their good nutrition as well as other reasons.
	PPT: NUT:	I could eat more fruits and vegetables than I do. You see ways to find pleasure in eating more fruits and vegetables.
	PPT: NUT:	It's good to try new things – it's fun. You're inspired to continue finding new ways to enjoy summertime fruits and vegetables.

FOOD TASTING	
Objective:Participants taste low-fat foods that support WHI goals.Purpose:Increase likelihood that participants will use recipes and foods that support WHI goals.	rt
Delivery Ideas: The food tasting portion of this session can be accomplished via the food demo/tasting segment.	

Nutritionist Resource 1

Plant Biotechnology/Genetically Modified Foods Background for Nutritionists

This resource provides background information for <u>nutritionists</u>. There is no expectation that the amount of detail included in this resource be covered in the session. Offer the amount of information appropriate to the needs and interests of your participants. The numbers in the Source column refer to the reference document in the list of *Optional Nutritionist Background Reading* (see page 2 of these materials). If you're looking for a single source document for <u>nutritionist</u> background reading, the session developer suggests Source 1 (*Food Biotechnology Overview -- March 2002*).

Question	Background Information	Source
What is plant biotechnology	Plant biotechnology is a way to modify plants by selectively giving them new characteristics or traits.	1
(biotech)?	Examples of new traits: ability to fight pests, different taste (e.g., sweetness), enhanced quality (e.g.,	
[Qx.1 on Sample Handout]	ability to withstand colder temperature, nutritional composition).	
How does biotechnology	Biotechnology selectively gives a plant a new trait by giving it the genetic blueprint (gene) for the desired	4
selectively give a plant a	new trait. The gene for the new trait may come from another plant, animal, or microbe. For example,	
new characteristic or trait?	biotechnology has created a type of corn (called Bt corn) that produces its own pesticide. This was done	
[Qx.2 on Sample Handout]	by giving the corn plant a gene (from a bacterium) that produces the pesticide.	
How is plant biotechnology	Similarities: Like modern plant biotechnology, traditional plant crossbreeding is a way of giving plants	2
different from traditional	new traits. Farmers have used plant crossbreeding for centuries to create new types corn, soybeans,	
crossbreeding?	tomatoes, and many other crops.	
[Qx.3 on Sample Handout]	Differences:	
	• Modern plant biotechnology allows <u>non-plant traits to be introduced in to plants</u> (see the Bt corn example above) whereas traditional plant crossbreeding does not.	
	• Modern plant biotechnology is <u>more precise and faster</u> than traditional plant crossbreeding. Using modern plant biotechnology, a single gene for a single trait can be to moved into a plant. This is not the case for traditional plant crossbreeding. For example, if a farmer wants plant A to have the color and size of plant B, the farmer crossbreeds them to create a new variety of plant. In order to get the two traits from plant B, the farmer must also take the rest of plant B's 100,000 other genes. To get rid of the unwanted genes, the farmer uses a process called back-crossing, which can take years.	
How are biotech plants	In general, there is no difference. The words biotechnology, genetic engineering, and genetically	
different than those	modified are often used interchangeably.	
produced by genetic		
engineering or those that		
are genetically modified?		
[Qx.4 on Sample Handout]		

Question	Background Information	Source
What biotech plants are available today? [Qx.5 on Sample Handout]	The first set of widely planted biotech crops have traits that improve <u>pest management</u> . These plants are immune to disease, kill insects, and make it possible to spray herbicides that kill weeds without harming the crop. These traits allow farmers to produce greater yields (with less cost and chemicals). Other biotech crops have traits that improve <u>taste or quality</u> .	5
	 A few examples of plants <u>already being grown</u>: corn and cotton that resist insects canola, corn, cotton and soybeans that tolerate herbicides peppers that are sweeter and remain firmer after harvest soybeans that offer better frying (oil) stability virus resistant papaya and squash The first biotech crops were introduced in the mid-1990s and planting has expanded every year since. In 2001, 66 million acres of herbicide-tolerant soybeans, cotton, canola, and corn were planted, as were 20 million acres of insect-resistant corn and cotton. 	1
What biotech plants might be available in the future? [Not on Sample Handout]	 A few examples of plants that <u>could soon be on the market</u>: peas grown to remain sweeter and produce higher crop yields bananas and pineapples with delayed ripening qualities potatoes with higher starch content (reducing the amount of oil absorbed during frying) A few example of plants that <u>could be available in the extended future</u>: rice enriched with vitamin A that may reduce incidence of blindness in developing countries corn and soybeans with enhanced protein quality (lysine and methionine) potato plants that withstand frost 	1

Question	Background Information	Source
How can plant biotechnology impact the environment? [Qx.6 on Sample Handout]	 Plant biotechnology poses possible risks and benefits for the environment. <u>Possible Benefits</u>: It is possible for plant biotechnology to <u>reduce pressures</u> on the land. Examples: Using fewer acres to get an acre's yield (by increasing a crop's own ability to fight pests and diseases). Reducing overall chemical stress on the environment (by using less pesticides). Saving valuable topsoil (fewer weeds and crop residues could allow farmers to use no-till farming methods that reduce erosion) 	1
	 <u>Possible Risks:</u> It is possible for plant biotechnology to have <u>unintended impacts</u> on the environment. Examples: <u>Possible transfer of herbicide-resistance genes to wild relatives</u>. In theory, this could produce 'superweeds' (i.e., a weed that becomes resistant to an herbicide by pollinating with an herbicide-resistant biotech plant – this can happen only if the biotech plant and weed are sexually compatible relatives). At the time of this writing, few biotech crops have wild relatives in the U.S. <u>Possible harm to beneficial or endangered insects</u> from herbicide-resistant biotech crops. In theory, this could happen if the beneficial insect eats the biotech plant or pollen or eats insects that have fed on the biotech plant. Example: There was much in the press a few years ago about an experiment 	3
	 that pointed to the possibility of Bt corn harming caterpillars that become Monarch butterflies. The EPA has since concluded that the impact of Bt corn on Monarch caterpillars is very small. However, at the time of this writing, the EPA has not ruled out that another butterfly species (Wisconsin butterfly) could be affected by Bt corn pollen. <u>Caution for balance</u>: Potential for harming beneficial or endangered insects applies to conventional insecticides as well. In the future for biotech: discussions about how much risk there is for biotech plants to interact with the environment and humans in unintended ways; i.e., debate about whether or not things that 'could' happen will turn out to be things that 'do' happen. 	6

Question	Background Information	Source
How are biotech plants tested before they're grown for consumers? [Qxs.7 & 8 on Sample Handout]	 <u>Environmental Safety:</u> Biotech plants are <u>field tested outdoors</u> before being marketed. The testing takes place for several seasons under controlled conditions to see that only desired changes have been made to the plant. <u>Human Safety:</u> Companies also do tests to see whether the levels of <u>nutrients</u> have changed, whether the levels of expected <u>toxins</u> have changed, and whether the proteins in the new plant have properties indicating that they might be <u>allergens</u>. 	1
	 Spotlight on allergens: Biotechnology does not make a food more likely to cause allergies. However, allergies are very serious for those who have them. Therefore, the FDA has required and recommended actions for biotech companies. For known allergens: the FDA <u>requires</u> that the food label indicate when a product includes a gene from a common allergy causing food (milk, eggs, wheat, fish, crustacea, tree nuts and legumes – peanuts and soybeans). For potential new allergens: the FDA <u>recommends</u> that companies analyze new proteins to see if these proteins possess properties indicating that the protein might be an allergen. 	3
	 In 2000, controversy was created when StarLink corn was found in taco shells. The following is a very brief summary of what happened. StarLink corn is a biotech plant developed to make its own pesticide. The EPA approved StarLink for animal feed, industrial nonfood uses, and seed increase. StarLink was not approved for use in food intended for humans because the protein (Cry9c) shared several molecular properties with proteins that are known food allergens. Despite the EPA ruling, Cry9c-DNA was detected in taco shells. The Centers for Disease Control and Prevention (CDC) helped the FDA investigate consumer reports of allergic reactions from eating food products containing corn. The CDC results provided no evidence that the allergic reactions were associated with Cry9c protein (using a test detect IgE antibodies that react with Cry9c), but noted that it is possible to have food allergies without detectable IgE to the allergen. Bottom line: StarLink corn is no longer grown and the EPA now only approves biotech crops for animals that are also approved for humans. Detailed information about StarLink corn can be found at starlinkcorn.com. 	4, 8
	In the future for biotech: discussions about ensuring that biotech plants present no additional risks to the environment or humans than traditional plant varieties.	

Question	Background Information	Source
How are biotech plants regulated? [Qx.9 on Sample Handout]	 Three U.S. government agencies are involved in biotechnology regulation: The U.S. Department of Agriculture (U.S.DA) oversees field testing of biotech plants. If a biotech plant makes its own pesticide, the Environmental Protection Agency (EPA) evaluates the safety of the pesticide the plant makes. The Food and Drug Administration (FDA) oversees safety and labeling of biotech foods using a consultation process where companies voluntarily submit safety-testing data to the FDA for review. In the future for biotech: discussions about whether voluntary consultation should be replaced with a 	3
	mandatory safety approval process.	
How are biotech foods labeled? [Qx.10 on Sample Handout]	 The FDA requires <u>special labeling</u> for a biotech food only if it is significantly different than its conventional counterpart: if the nutritional value changes if it contains a potential allergen (milk, eggs, wheat, fish, crustacea, tree nuts and legumes – peanuts and soybeans). 	1, 3
	<u>Spotlight on terminology</u> : GMO on a food label generally stands for 'genetically modified organism'. Some companies use "GMO- free" (or similar) as a way to indicate that the food does not contain material produced through biotechnology. As of this writing, this terminology is neither standardized or regulated. In the future for biotech: discussions about labeling requirements.	7

Nutritionist Resource 2

Summer - 20

New Ideas for Summer's Bounty

This resource provides some example ideas for the *New Ideas for Summer's Bounty* Skill Building activity (see pages 11-12 of these materials). We realize that this list isn't exhaustive – there are so many different summertime fruits and vegetables available in different regions! Use the ideas listed below as a springboard for your own creative ideas. What summertime fruits and vegetables will be available in your area during the time of this session and what will likely be new and different for your participants? The goal is to help participants (and nutritionists!) have fun with this and to enjoy something new about summertime fruits and vegetables.

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

CONTINUED ON NEXT PAGE

Nutritionist Resource 2 (continued)

New Ideas for Summer's Bounty

A Few Ideas Invite participants who grow their own summertime fruits and vegetables to bring some examples to share with their group members. Ask them to share: what they grow (specific varieties), why they grow these particular items, how they use what they grow, etc. Invite growers from your local farmers' market(s) to demonstrate and share what they grow and bring to market. Ask them to share what to look for and how to use the items they grow. If it works for your center and participants, take participants on a tour of the local farmer's market, a fruit/vegetable stand or supermarket. Demonstrate how to select and peel a mango (or pineapple, or another fruit that participants might not be familiar with). Serve plain or use to make smoothies, sorbet, or salsa. Demonstrate how to select a ripe fig. Show different varieties if available. Serve plain or use in a salad greens demo (see below). Have participants make homemade lemonade (or lime). Introduce participants to different varieties of cantaloupe, honeydew, and watermelons. Serve plain or have participants make a quick fruit salad (mix choice of fruits with a bit of orange juice) – serve as a side dish salad, as a dessert, or over yogurt for breakfast. Introduce participants to different varieties of nectarines and peaches. Serve plain or use in a salad greens demo (see below). Introduce participants to different varieties of summer salad greens. Have them taste each green – to experience the different flavors. If possible, have participants create a mixed salad using the different greens and other summer fruit and vegetable add-ins (e.g., sliced ripe nectarine or fig or berries on a bed of greens makes a delicious salad) - encourage participants to try combinations they haven't tried before. Introduce participants to different varieties of beets (red, yellow, white, candy stripe). If your participants aren't familiar with beet greens, demonstrate how to prepare them. Introduce participants to different varieties of chili peppers - do be careful, some can be very hot. Have participants try different varieties of corn, if available in your area. If they haven't done so before, have them try fresh (raw) corn sliced off the cob – delicious as a topping for green salads. Introduce participants to different varieties of eggplant (purple, white, Asian) if available in your area. Serve baked or grilled eggplant – can be served at room temperature. Or, have participants make homemade Baba ghanoush (a Middle Eastern spread/dip that is puree of eggplant, tahini, olive oil, lemon juice, and garlic). Introduce participants to different varieties of mushrooms (white, cremini, oyster, shiitake, portobello, etc.). Have participants make stuffed mushrooms or a quick grill of mushrooms mixed with other summer vegetables. Introduce participants to different varieties of potatoes (e.g., purple, Yukon gold), summer squash (e.g., pattypan), or heirloom tomatoes. If participants have difficulty accessing fresh summertime fruits and vegetables, consider including a discussion that helps them share ideas for gaining greater access (e.g., carpooling with other participants to fresh markets, ways to talk with the grocer about offering a greater variety, etc.). If participants are concerned about the cost of fresh summertime fruits and vegetables, consider including a discussion that helps them share ideas for ways to save costs (e.g., using expensive items as sides or garnish; using less expensive items as main events; where in your area to find local farmers who sell direct to the consumer for less; ideas for produce that can be purchased in bulk for a better price, and then canned or frozen or shared with others (including the cost), etc.).

Sample Handout

Plant Biotechnology

Read the statements below. Place a check mark (\checkmark) in the box that best describes the statement. For answers, look at the bottom of the page.

Statement		True	False
1	Plant biotechnology is a selective way to give plants new traits. For example, a trait that allows a plant to make its own pesticide.		
2	Plant biotechnology gives a plant a new trait by giving the plant the gene for the new trait. For example, the gene for making pesticide.		
3	Modern plant biotechnology and traditional plant crossbreeding are the same thing.		
4	Biotech plants are different than genetically engineered (or genetically modified) plants.		
5	Biotech crops such as corn and soybeans are used in the foods we eat today.		
6	Scientists can be 100% sure about how a biotech plant will interact with the environment and humans.		
7	Biotech plants are tested before they are grown for consumers.		
8	If a biotech food contains a new protein, companies must check to see if the protein might cause an allergy in humans.		
9	In the U.S., biotech foods are not regulated.		
10	If a biotech food contains a protein that is known to cause an allergy in some people (such as wheat), the consumer can know this by reading the food label.		

Answers: 1-T, 2-T, 3-F, 4-F, 5-T, 6-F, 7-T, 8-F, 9-F, 10-T

Summer 2003 Reminder (Electronic copy available)



Summer's Bounty: Beyond the Basics

Do you have questions about genetically modified foods? Are you confident that you know what news reporters mean when they talk about plant biotechnology? Do you know which biotech crops are grown for consumers today? Whether you answered 'yes', 'no', or 'not sure' to these questions, please join us at the Summer 2003 session for a discussion about plant biotechnology. We'll talk about what it is, how it is used in our food supply, and what we know about its safety. The Summer 2003 session will also include time to enjoy summer's bounty. We'll talk about the pleasures of summertime fruits and vegetables and share new ideas for using the wonderful produce available at this time of year.

We look forward to seeing you!

Summer 2003 Makeup (Electronic copy available)

Women's Health Initiative

MAKEUP FOR SUMMER 2003 GROUP SESSION

We missed you at the Summer 2003 session 'Summer's Bounty: Beyond the Basics'. Please use the enclosed materials to complete this session by mail.

The Summer 2003 session brought new discussion to the topic of fruits and vegetables. We began the session with a brief discussion of plant biotechnology -- a topic that is often in the news. We talked about what plant biotechnology is, how it is used in our food supply, and what we know about its safety. After this, we switched gears a bit and spent the rest of the session enjoying summer's bounty. We talked about the pleasures of summertime fruits and vegetables and challenged ourselves to think of non-taste pleasures. Finally, we shared and sampled new ideas for using the wonderful produce available at this time of year.

To complete this session by mail, please do the following activities:

- 1. Read the Summer 2003 session material.
- 2. Answer the following questions:
 - What do you now know about plant biotechnology that you didn't know before this session?
 - How could 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?
- 3. Mail this page in the enclosed envelope. Please include any self-monitoring tools you completed during the last 3 months.

Thank you for your continued contribution to WHI.