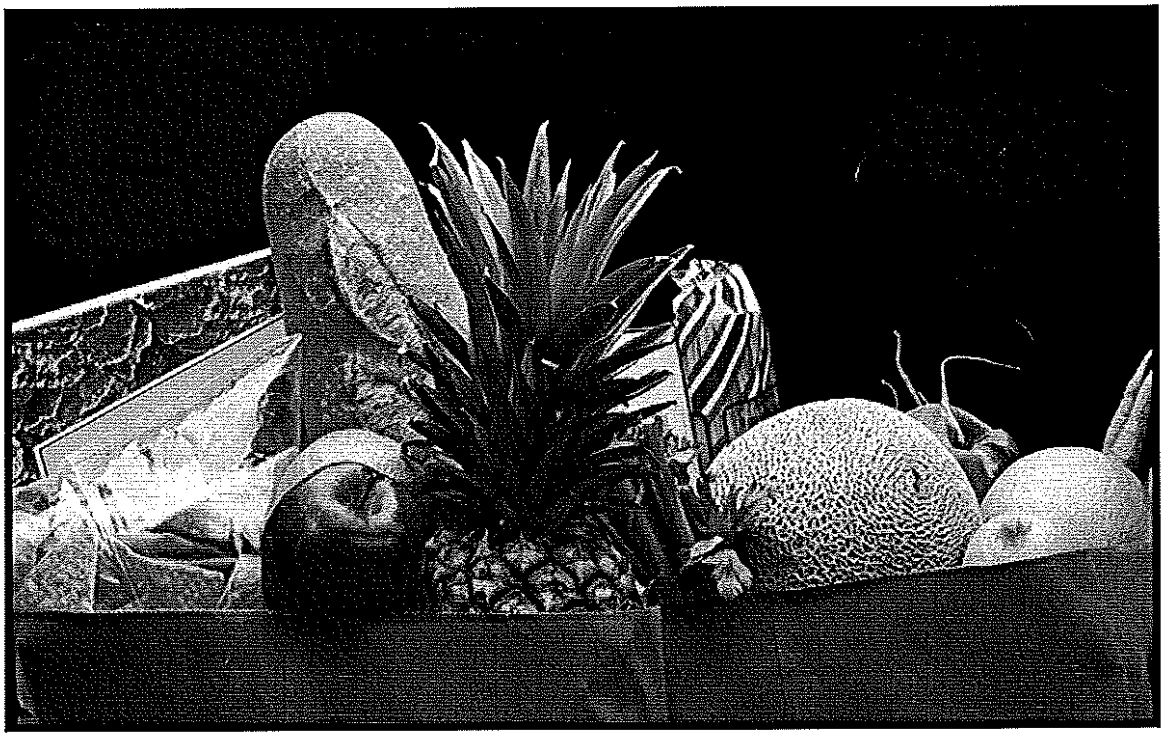
Vegetarian Diets Vegetarian Cuisine

Prepared by Arendje Whidden

British Columbia Agriculture in the Classroom Foundation
Summer Institute 2001 Unit Plan
for Food Studies 11 and 12



Summer Institute 2001 was sponsored by:

BCID Fund
Beef Cattle Industry Development Fund

Summer Institute for Educators

This document is the result of the author's participation in the BC Agriculture in the Classroom Foundations' Summer Institute for Educators. This third year level course in curriculum design is offered through the University of British Columbia's Office of Continuing Professional Education.

Participants (20 educators from Kindergarten to Grade 12) spend one week at the Montfort House Rural Resource Centre situated on UBC's Farm on Vancouver Island. Here they develop a number of practical teaching strategies for their classrooms using examples drawn from the agricultural, environmental, economic and nutritional concepts featured in the Bc Integrated Resource Packages for their particular grade or subject area.

The agricultural community sponsors participants for the costs of learning resources, tuition, meals and accommodation.

Participants taking the course for credit create teaching modules such as this to share with other educators from around the province.

Applications can be made on the BC AITC web site at www.aitc.ca/bc or directly at the AITC office. Contact Lindsay Babineau at 604-556-3088 for an application form.

Core funding for BC Agriculture in the Classroom Foundation's Summer Institute for Educators 2001 was provided by:

- the Beef Cattle Industry Development Fund

Teacher sponsorship was provided by:

- BC Broiler Hatching Egg Commission
- BC Cattlemen's Association
- BC Institute of Agrologists-Okanagan Branch
- BC Institute of Agrologists-Fraser Valley Branch
- BC Milk Producer's Association
- BC Potato and Vegetable Growers' Association
- BC Turkey Marketing Board
- CIBC Agriculture Division
- First Heritage Delta Credit Union (Envision)
- Fraser Valley Strawberry Growers' Association
- Mainland Dairymen's Association
- Nechako Valley Regional Cattlemen's Association (Slocan Forest Products-Plateau Division)
- North Okanagan Livestock Association
- Royal Bank of Canada Agriculture Division
- Whitta Farm

BC Agriculture in the Classroom Foundation is supported by:

BRITISH COLUMBIA
Ministry of Agriculture, Food and Fisheries

Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

Investment Agriculture Foundation of British Columbia

British Columbia Agriculture in the Classroom Foundation

1767 Angus Campbell Road
Abbotsford, BC V3G 2M3
P 604.556.3088
F 604.556.3030
www.aitc.ca/bc

INTRODUCTION -

There are many reasons why people become vegetarians. Vegetarianism literally means a diet based solely on vegetables. In reality, it refers to any diet that emphasizes edible plants which include fruits, vegetables and grains [wheat, oats, rice, etc.] A vegetarian is someone who follows this type of diet.

There are many reasons why people are vegetarians. Some religions are based on the omission of certain animal foods from the diet and all followers adopt a vegetarian regime. Other people are concerned about eating the pesticides and antibiotics that beef cattle and other animals may consume in their feed. Some vegetarians take an ethical stance against the killing of animals, while others believe that eating beef is wasteful. The idea that many people can be fed from the grain required to feed one beef cow encourages many to promote vegetarian diets as a way to feed the world's hungry. Nutrition is a concern for many. The vegetarian diet is usually lower in fat content and higher in fiber content which is the prescribed way of eating to decrease the risk of health problems such as obesity and heart disease. Others may choose vegetarian type diet to lose weight or they just don't like meat.

While students in high school may have a limited understanding of the reasons they follow a vegetarian type regime, it is important that they gain an understanding of their nutritional requirements and how they can manipulate the vegetarian diet and still consume the necessary nutrients for optimum health. Each vegetarian's diet needs to be assessed in order to evaluate the nutritional quality of the diet.

Italics are added and denote information from Vegetarian Cuisine Text by Heather Csikos, 1999

INTRODUCTION -

DESCRIPTION -

Food Studies 11 and 12 focuses on planning and preparing nutritious food for individuals, groups and families. Students develop various skills from planning menus to presenting attractive meals, and increase their knowledge of the nutritional, social, and economic factors that affect food selection and preparation. In addition to considering safety issues, appropriate cooking and storage methods, preparing and presenting food, and budgeting money, time and energy, they also *assess global issues related to food production and consumption.*

Students learn to maximize the health benefits of food while planning and preparing meals. They explore factors that affect an individual's nutrient requirements at every stage of life. Students apply these principles of nutrition to their own food production. Students examine the environmental, cultural, and economic factors that influence food choices. They increase their awareness of the impact of an individual's food choices on others, both locally and globally, and they use this knowledge to make responsible food choices.

Students may also play a crucial role in communication concerns about the agricultural industry as it impacts them as they plan for a variety of real life situations at home and the workplace. *Students should be able to understand and interpret their world and to identify and solve problems that occur in their daily lives. Effective resource management is required by every individual in both personal and work life. In home economics, students learn to manage time, money, energy and skills to provide for their own and their families' needs.* Concerns identified by the agricultural industry [as discussed in the video "Promise of the Land"] and which could be discussed as part of this unit include:

- conflicting land use priorities put pressure on the availability of farmland and the production of our food supply
- challenge of presenting farming as a viable occupation and using natural resources wisely
- the importance of affirming the importance of agricultural activities in a community

This unit will help the students to critically analyze what motivates people to follow vegetarian eating plans. Some people become vegetarians because they are concerned about the world food supply and believe that eating meat may contribute to the problem of world hunger. Other people become vegetarians for economic reasons. Still others become vegetarians for health reasons and believe that they can use this method as a means of weight lose. The emphasis on low-fat, low-cholesterol, and high-fiber eating plans has led other people to become semi-vegetarians. Students will look at all these reasons and through a number of activities come to their own conclusions about the vegetarian lifestyle.

Italics are added and denote information from the Home Economics Integrated Resource Package 1998.

CROSS CURRICULAR INTERESTS

The Ministry of Education wants to ensure that education in British Columbia is relevant, equitable and accessible to all learners. In order to meet the needs of all learners, they have guided the development of instructional strategies, assessment strategies, and learning resource evaluations. The development of each component has been guided by a series of cross-curricular reviews.

Home Economics courses offered at the secondary level become more subject specific. There is a continued focus on meeting the needs and wants of individuals and families in a responsible manner. For this unit, the areas that relate to agriculture and to vegetarianism include:

Value of Integrating Environmental and Sustainability Themes
Integrating 'environment and sustainability" themes into the curriculum helps students develop a responsible attitude toward caring for the earth. Students are provided with opportunities to identify their beliefs and opinions, reflect on a range of views, and ultimately make informed and responsible choices. Some guiding principles that support the integration of "environment and sustainability" themes:

- *direct experience is the basis of learning*
- *responsible action is integral to, and a consequence of, environmental education*
- *life on earth depends on, and is part of, complex systems*
- *human decisions and actions have environmental consequences*
- *environmental awareness enables students to develop an aesthetic appreciation of the environment*
- *the study of the environment enables students to develop an environmental ethic*

Value of Integrating Information Technology
As Canada moved from an agricultural and industrial economy to the information age, students must develop new knowledge, skills and attitudes. With information technology integrated into the curriculum, students will be expected to:

- *demonstrate basic skills in handling information technology tools*
- *apply search criteria to locate or send information*
- *transfer information from external sources*
- *modify, revise, and transform information*

Value of Integrating Multicultural Education and Anti-Racism Education
Multicultural education stresses the promotion of understanding, respect, and acceptance of cultural diversity within our society. Anti-racism education promotes the elimination of racism through identifying and changing institutional policies and practices as well as identifying individual attitudes and behaviors that contribute to racism. Multicultural and anti-racism education provides learning experiences that promote strength through diversity and social, economic, political, and cultural equity. Some key goals of multicultural and anti-racism education are:

- *to enhance understanding and respect for cultural diversity*

- *to develop self-worth, respect for oneself and others, and social responsibility to combat and eliminate stereotyping, prejudice, discrimination, and other forms of racism*

Career Development

Career development is an ongoing process through which learners integrate their personal, family, school, work, and community experiences to facilitate career and lifestyle choices. For grades 11 and 12, career development focuses more specifically on issues related to the world of work. These include:

- *occupational health issues and accessing health support services*
- *connect what they learn in school with the skills and knowledge needed in the workplace and society in general*
- *experience both theoretical and applied learning, which is part of a broad liberal education*

Assessment

Assessment focuses on the critical or significant aspects of the learning that students will be asked to demonstrate. Students benefit when they clearly understand the learning goals and learning expectations. It is suggested that when dealing with sensitive issues that the teacher

- *obtain appropriate in-service training before beginning instruction in a new, unfamiliar, or potentially sensitive area of study.*
- *promote critical thinking and refrain from taking sides, denigrating, or propagandizing one point of view.*

CONNECTION TO CURRICULUM – LEARNING OUTCOMES

Food Studies 11 and 12 focuses on planning and preparing nutritious food for individuals, Groups, and families. Students develop various skills from planning menus to presenting attractive meals, and increase their knowledge of the nutritional, social, and economic factors that affect food selection and preparation.

Grade 11
It is expected that students will:

- explain and use basic-food-related terminology
- demonstrate a variety of food-preparation techniques
- use creative expression in food preparation and presentation
- select food products and meals to meet nutritional and aesthetic standards
- prepare food products and meals based on Canada's Food Guide to Healthy Eating
- identify factors that contribute to the aesthetic and social aspects of food
- analyze food products and meals according to predetermined criteria
- describe the functions of nutrients in the body
- identify nutritional issues and describe their effects on well-being
- identify environmental and health issues relate to the production and consumption of food
- demonstrate an appreciation of multicultural influences on eating habits
- identify career opportunities in the food industry

Grade 12
It is expected that students will:

- devise and implement effective time plans
- design and prepare meals to meet a variety of situations
- describe nutritional requirements throughout life
- evaluate and modify diets for a variety of physiological needs
- evaluate career opportunities in the food industry

LEARNING ACTIVITIES –

1. Review types of vegetarianism and the motivators for choosing these diets. With the class, critique a vegetarian meal plan, focussing on the needs for complementary proteins and nutritional balance. Then ask students to plan nutritionally balanced vegetarian meals for a one-week period. Have students prepare a sample meal from one of the suggested menus.

2. Create a poster on why people become vegetarians. Include at least 4 reasons. Write a report about one or two of the reasons for becoming a vegetarian in more details.

3. Plan, prepare, and present a dish featuring:
   legumes [e.g. main course, soup, salad, dip, etc.].
   milk or egg or a combination of both [e.g. quiche, souffle, frittata, omelet, etc.]
   complementary proteins for a vegan
   tofu [e.g. drink, stir fry, casserole, soup, etc.]
   a protein substitute [eg. meat, milk or egg substitute]
   Analyze the dishes as far as protein, fat, iron, calcium and calorie content.

4. Discuss the following problems associated with being a vegetarian i.e. - the reliability of nutritional information, making sure you consume all the necessary nutrients or take vitamin supplements, palatability of vegetarian foods, attitudes towards eating patterns, time required for preparation of vegetarian dishes, eating in restaurants, etc.

5. Develop and analyze meal plans for ovo/lacto or vegan vegetarians for at least 3 days. Begin with the main meal of the day. Start with a protein source [grains, legumes, nuts and seeds, meat substitute]. Add milk products or substitutes, vegetables and fruit to complete the meals. Meals should have food from each food group, a variety of flavors, a variety of colors, a variety of textures, and a variety of temperatures.

6. Have students taste samples of rice milk, soy milk, and cow's milk. Ask students for their reactions. Discuss how milk from plants and other vegetarian foods help vegetarians meet specific nutrient needs. Identify other foods that help meet vegetarians' nutrient needs.

7. Ask the students to list the four basic types of vegetarians. Then, under each type, list the definitions, food choices, fat and protein contents, and pros and possible cons of each.

8. Invite a guest panel of students who represent different types of vegetarian eating plans to discuss the similarities and differences in what they eat. If preferred, the panel may be in 'talk show' format. Students can provide the 'host' with a list of questions to ask about the vegetarian plans.

9. Ask students to research non-animal sources rich in iron and calcium. Plan a one-day vegan meal plan with students, including as many of the iron- and calcium-rich sources

as possible. Discuss how supplementation may be necessary for vegans to meet vitamins D and B12 needs. Ask students how these vitamin needs can be met through foods in other vegetarian eating plans.

10. Have students research and share their findings on vegetarianism today. Then have the students write a paragraph that describes the growth of vegetarianism since 1908. Have several volunteers read their paragraphs in class, have the rest of the students pick out the best line or two from each paragraph. Then, with the class, write a consensus paragraph.

11. Provide students with cookbooks. Have students look for recipes that vegetarians could use. Have students identify the recipes and determine which of the four vegetarian types could use the recipes.

12. Have students develop a checklist of essential vitamins and minerals. Have students use their checklists to analyze typical vegetarian menus. Discuss which menus provide protein, fat, iron, calcium and vitamins B12 and D.

13. Have students locate recipes for vegetarian entrees. They are to collect the recipes into a multi-page document. Give each student a copy for discussion. Which recipes are appropriate for all types of vegetarian eating plans? Which recipes provide high-calcium foods? High-iron foods?

14. Have students visit one supermarket and record the specialized vegetarian products available such as veggie hot dogs, veggie burgers, and veggie deli meats. Permit time for them to discuss and compare their findings.

15. Divide the class into four groups. Provide each group with ingredients and basic vegetarian recipes, each using one or more of the following: [1] soy milk, [2] tofu, [3] seitan, and [4] vegetable protein. Ask students to discuss their recipe. How was the vegetarian ingredient used? Ask students to evaluate the taste and appearance of the dishes. Then, as a class, write a menu description for each recipe.

16. Have students plan and write out a one-day, well-balanced vegetarian eating plan.

17. Have students research vegetarianism in other countries. What type of recipes do they use? Do they follow the same guidelines as vegetarians in Canada? What are the differences? Ask the students to use the Internet and other sources to research eating patterns, celebrations, food-related taboos, and table etiquette for a selected vegetarian culture.

18. Have students form two debate teams. One group is to argue vegetarian eating plan benefits, others the challenges. Each team should anticipate what the other team may debate. Have teams stage a debate in front of an impartial jury of their peers.

19. Provide ready-made pizza crusts and a variety of toppings for vegetarians. Have half the students create two different vegan pizzas, the other half, two different lact-ovo vegetarian pizzas. Have students compare and critique vegetarian pizzas. Ask students to draw pizza box covers for their creations. Each group should also name their pizzas.

20. Have students work in groups to solve the following problems that occur in a vegetarian diet. How can a vegetarian reduce fat consumption? How can a vegetarian avoid an iron shortage? How can vegans avoid deficiencies of vitamins B12 and D?

21. Provide students with restaurant menus. Have students select menu items for a meal to be eaten by a vegetarian.

23. As a class, have students select one food that offers versatility in menu planning [eg. pumpkin, carrots, rice, etc.]. Form pairs and have each pair present it at a tasting buffet. Encourage students to be creative and to focus on the quality of their presentations.

24. Form pairs and challenge each pair to plan, purchase, and prepare a vegetarian lunch for themselves plus one guest within a limited budget. Have students submit supply receipts, time plans, and self-evaluations. Ask them to compare costs of a similar meal at a commercial food outlet.

25. Invite students in small groups to plan after-school dinners for their families. Have each group plan a vegetarian menu, develop a market order, schedule for preparation time, and assign kitchen duties.

26. As a class, brainstorm the nutritional significance of eating a variety of foods. Challenge each student to plan and prepare a one-dish vegetarian meal that uses foods for each of the four food groups.

27. Assign each student an unusual fruit or vegetable to research [e.g. guava, leek, artichoke, kumquat, plantain], with a focus on its origin, growth, nutritional value, and uses. Have students prepare dishes using these foods to share at a tasting buffet.

28. Lead a brainstorming session to determine how cultural values are reflected in social gatherings and at mealtimes. Plan a multicultural celebration at which students demonstrate the preparation of dishes that reflect heritages that have a vegetarian food focus.

29. Suggest that students investigate eating patterns from their own and other countries and describe how these patterns meet nutritional needs. Ask them to relate food choices to geography, economics, and agriculture of the various countries.

30. Lead a class discussion on local environmental issues related to food production and consumption. Focus on vegetarian diets, 'everyday diets', pesticides, hormones, genetic engineering, additives, packaging, and recycling.

31. With the class, brainstorm factors that affect fluctuations in the supply and cost of BC communities. Throughout the year, ask students to chart the local cost of selected foods [eg. foods that would be included in a vegetarian diet]. Have them relate their findings to climatic conditions, seasonal availability, and the existence of marketing boards.

32. Invite students to investigate various vegetarian diets. Obtain a variety of restaurant menus and ask students to determine what they would order to suit each type of diet.

33. Ask students to research and critique various weight-management methods [fad diets, commercial diet programs, diet pills, fasting, vegetarian diet, etc.]. Extend the activity by having them develop healthy eating and activity programs for themselves based on lifestyle and body type. Students could also prepare sample meals from their programs.

34. Engage students in a debate on current food issues, including vegetarianism and ask them to draw conclusions.

35. Suggest that students use video, print, and computer resources to research a range of global environmental and health issues related to the production and consumption of food [e.g. famine, malnutrition, food distribution]. Ask them to identify organizations and strategies that address these concerns.

STUDENT ASSESSMENT –

1. Ask the students to reflect on the following questions:
   - how have your eating habits been affected by what you learned about vegetarianism?
   - what part of the lessons did you find most valuable?
   - what else do you want to learn about vegetarian cuisine?
   - what did you find was the main reason people become vegetarians?
   - what type of careers could be related to vegetarianism?
   - how would you find out more about vegetarianism?

Many other assessment ideas are listed in the *Integrated Resources Package* under the column *Suggested Assessment Strategies* and can be adapted for the various activities listed here.

RESOURCES -

There are a variety of resources available with good information about vegetarian eating patterns and meal planning.

Canada's Food Guide to Healthy Eating **[tear off sheets]**
Available from: Health and Welfare Canada Publications Unit
4th Floor, Jeane Mance Building
Tunney's Pasture
Ottawa, Ontario K1A 1B4

Vegetarian Cuisine [FOD213] Module Learning Package [an excellent resource designed for individual student use]
Available from: Heather Csikos
116 Cedarille Green SW
Calgary Alberta T2W 2H4
Tel / Fax: 403-281-7724
Email: csikos@nucleus.com

Fieldtrips to supermarkets to view the variety of vegetarian foods available; also to vegetarian restaurants if available.

Food Text Books. Most of our classroom textbooks contain information on vegetarian diets.

Lappe, Francis Moore, ***Diet for a Small Planet,*** Ballantine Books, Toronto, 1975.

Salter, Charles A., ***The Vegetarian Teen***, Brookfield, Conneticut: Milbrook Press, 1991

American Dietetic Association, ***Vegetarian Diets.*** [Online]

DINE Nutrient Analysis Software or Nutritional Analysis Programs such as Food Focus

Vegetarian and Other Cookbooks – try the school or public library as well as the Internet for a variety of vegetarian recipes.

Some ***Internet Sites*** include:

World Guide to Vegetarianism	http://www.veg.org/veg/Guide/Canada/index.html
Religion and Vegetarianism/AR	http://arrs.envirolink.org/religion.html
ADA Vegetarian Diets	http://www.eatright.orgadap1197.html
Welcome to Yves Veggie Cuisine	http://yvesveggie.com/