

Cooking Up a Rainbow 1.0

The HAWAII 5210 Edition



ACKNOWLEDGEMENTS

This manual is part of a Hawaii Specialty Crops project funded by the Hawaii Department of Agriculture, with funding from the U.S. Department of Agriculture. It is available only in digital format.

Companion material for the Hawaii Specialty Crops project developed by the Kapiolani Community College includes:

1. A digital photo library of Hawaii Specialty Crops – fruits, vegetables, and herbs.
2. A digital photo library of step-by-step produce cutting and preparation instructions.
3. Individual step-by-step video clips of produce cutting and preparation instructions.
4. Recipes that highlight the best usage of Hawaii Specialty Crops in various cold and hot food preparations and recipes.

The manual and companion digital content are available for free download at the Kapiolani Community College (KCC)'s Culinary Arts website <http://culinary.kapiolani.hawaii.edu/cooking-up-a-rainbow/> and partner organizations' websites. The manual will be updated and expanded on an on-going basis in response to community needs.

PARTNERS

The content, recipes, cooking and nutrition information developed for this manual is the culmination of efforts in implementing nutrition education and obesity prevention programs with partner organizations through consultation, testing, and piloting over several years. The staff of these organizations contributed in numerous ways, and provided the authors and editors invaluable knowledge and advice on community needs, and the issues involved in healthy eating for populations of different age groups, ethnic and socio-economic backgrounds. We want to acknowledge these organizations and welcome their input so this manual can be continuously improved.

Hawaii Department of Education – DOE schools, Hawaii Child Nutrition Program (HCNP)
 Hawaii Department of Health – SNAP Ed programs
 University of Hawaii John A. Burns School of Medicine – Pediatrics Department
 Hawaii Initiative for Childhood Obesity Research and Education (HICORE)
 University of Hawaii College of Tropical Agriculture and Human Resources – Department of Human Nutrition, Food, and Animal Science
 United States Department of Agriculture (USDA)
 Hawaii Medical Services Association (HMSA)
 The Y (YMCA) of Honolulu
 Kaho'omiki Fun Five Program
 The Sacred Hearts Academy
 National Oceanic and Atmospheric Administration
 Hawaii Association of Independent Schools – Grow Hawaii
 Kokua Kalihi Valley Comprehensive Services – Roots Project, Ho'oulu 'Aina
 Kalihi Palama Health Center
 National Kidney Foundation of Hawaii
 American Heart Association



CONTRIBUTORS

Ron Takahashi MBA, CHE, CFBE	Principal Investigator
Daniel Leung MSW, AS (Culinary Arts)	Editor, author
Frances Yuan Hayashi RD	Co-editor, author
Robert Bates, Super8Cowboys	Photographer, videographer, director
Jess Johnston, Super8Cowboys	Food stylist, graphic artist
Adriana Torres Chong	Food stylist, photographer
Tiffanie Masutani	Chef instructor, video demonstrator
Matt Egami	Chef author, instructor
Carol Nardello	Chef author, instructor
Sharon Kobayashi	Chef author, instructor
Alyssa Moreau	Chef author, instructor
Bethany Fong RD	Chef author, instructor
Henry Holthaus	Chef author, instructor
Alan Tsuchiyama	Chef author, instructor
Evelyn Barut, Cassidy Inamasu, Jaunette Quiroz, Alissa Taniguchi, YMCA	Recipe Authors
Lena Lee	Student Assistant
Maggie Leung	Student Assistant
Whole Foods Hawaii	
Ho Farms	
Aloun Farms	
Nalo Farms	
Ma'o Farms	
The Honolulu Fish Auction	
The Hawaii Fish Company and Ron Weidenbach	

Kapiolani Community College and the editors of this manual are truly grateful to the highly professional and generous contribution of time, expertise, knowledge, products, and hard work of all those listed. Any omission is unintentional and will be added to the list upon notification.



Table of Content



Special Section: **HAWAII 5210**
LET'S GO!

Chapter 1. Preface and Overview – *How to use this Manual*

- 1.1 “Grab and Go” – *bullets of practical information and instructions*
- 1.2 A manual for teachers, health educators, youth workers and parents
- 1.3 Translating nutrition information into practical food preparation steps
- 1.4 The “Tasty” versus “Healthy” Conundrum
- 1.5 Less is More – *the “your food tastes good because you cook like a chef” fallacy*
- 1.6 Focus on Good Cooking Techniques for Good Food, not Recipes
- 1.7 Drawing Parallels between Cultures
- 1.8 No “Dumbing Down” for Children

Chapter 2. Starting Points – *The Philosophy and Values of Cooking Up A Rainbow*

- 2.1 “Cooking Up a Rainbow” is the bright side of “cooking up a storm”
- 2.2 What makes our meals exciting?
- 2.3 Healthy meals have to be tasty and exciting!
- 2.4 Expanding our Food Choices
- 2.5 Taking Control over our Food Environment
- 2.6 You are what you eat – *just think, whatever you eat becomes part of you!*
- 2.7 The Family that Eats Together Stays Together: *there is more to eating when adults and children eat at the same table*
- 2.8 Mindful Eating: *Knowing when you are hungry, and knowing when you are full*

Chapter 3. Planning for Cooking – *What, and how, to prepare before you cook*

- 3.1 Planning for Preparing Tasty, Healthy, Affordable Meals
- 3.2 Stocking the pantry
- 3.3 Kitchen Equipment for Healthy Cooking
- 3.4 Food safety and sanitation supplies

Chapter 4. Shopping & Storing – *Fresh and Safe All the Way*

- 4.1 Keep food safety in mind when shopping for food
- 4.2 How to buy fresh and safe food
- 4.3 Farmers market, Chinatown markets, Supermarkets, Big box stores
- 4.4 Keep food safe on the way home
- 4.5 Storing and keeping food safe at home

Chapter 5. Choosing Ingredients – *What to cook? How to decide?*

- 5.1 Variety creates excitement
- 5.2 The Flavor Profile
- 5.3 Sourness and bitterness add depth and complexity to the flavor profile
- 5.4 Seasonality
- 5.5 Fresh is tasty, fresh is healthy – *there is a logic to it!*
- 5.6 Local versus Organic
- 5.7 Wild Caught or Farm Raised
- 5.8 Controlling salt, fat, and sugar
- 5.9 Choosing “low salt” products
- 5.10 Choosing low fat products
- 5.11 Choosing “sugarless”, “no sugar”, or “natural” products
- 5.12 Know your number: Calories count
- 5.13 Using store bought, canned, or preserved, processed ingredients
- 5.14 What goes with what - start with fresh, seasonal ingredients

Chapter 6. Organizing Your Meals – *There’s a Place for Everything*

- 6.1 The Art of Eating – *how to maximize your enjoyment and nutrition*
- 6.2 What’s on My Plate
- 6.3 My Plate Guidelines
- 6.4 Grains
- 6.5 Proteins
- 6.6 Vegetables
- 6.7 Dairy
- 6.8 The Composition of A Salad



Chapter 7. Creating Flavors – *Bringing out the Best from the Freshest Ingredients*

7.1 Seasonings

7.2 Flavoring Agents

7.3 The Secret of Maximizing Flavors

- 1) Basic Flavorings
- 2) Common elements in using flavoring agents
- 3) Asian Style Basic Flavoring
- 4) Savoriness: *Umami*

Chapter 8. Cooking Methods – *The Key to Understanding and Mastering Recipes*8.1 We eat with our 5 senses, so cook with the 5 senses *What's on My Plate*8.2 Get organized: *Clean Space = Clear Mind*

8.3 Pay attention to Time and Temperature

8.4 Maximizing use of each ingredient -Reduce Waste, Stretch your Budget

8.5 Knife Skills = Efficiency

8.6 What happens when food is cooked? *The useful and interesting science of creating great flavors and healthy dishes*

8.7 Let the oil and water do the cooking

8.8 Concentrating flavors

8.9 Caramelizing means bringing out Sweetness

8.10 Marinating

8.11 Oil and Fat carry Flavor

8.12 Cooking with Alcohol – *a healthy and flavor enhancing technique*

8.13 Cooking Methods for Tasty and Healthy Dishes

- Sauté
- Poaching
- Poaching
- Grilling and Broiling
- Steaming

Chapter 9. Kitchen Safety and Sanitation

9.1 Hand Washing

9.2 Equipment Washing

9.3 Personal Hygiene

9.4 Use powder-free disposable gloves (for cooking activities outside of home

9.5 Knife Skills & Safe Handling

Rule #1: Use a Sharp Knife

Rule #2: Don't Catch A Falling Knife

Rule #3: Use the Right Knife

Rule #4: Make your Cutting Board a Safe Working Environment

Rule #5: Watch What You Are Doing

Rule #6: Carry A Knife Properly

Rule #7: Wash Knives Immediately

Rule #8: Cut On A Board

Using a Knife

- Using a Basic Chef's Knife
- Holding A Knife
- Safety Around the Stove
- Kitchen Fire Safety
- Preventing Injury (Slips, Trips, and Falls)

Minimum Internal Temperature for Food Safety Chart

Appendix

- **Hawaii Fruits Recipes**
- **Hawaii Vegetables Recipes**
- **Photo Glossary of Hawaii Fruits (PDF)**
- **Photo Glossary of Hawaii Vegetables (PDF)**
- **Photo Glossary of Hawaii Fresh Herbs (PDF)**
- **Photo library of Hawaii Fruits Cutting Instructions (PDF)**
- **Photo library of Hawaii Vegetables Cutting Instructions (PDF)**

Companion Digital Content





- **Digital photo library of Hawaii Fruits**
- **Digital photo library of Hawaii Vegetables**
- **Digital photo library of Hawaii Fresh Herbs**
- **Digital photo library of Hawaii Fruits Cutting Instructions**
- **Digital photo library of Hawaii Vegetables Cutting Instructions**
- **Video clips of Hawaii Fruits and Vegetables Cutting and Cooking Instructions**

(Available for free from Kapiolani Community College, Culinary Arts Department and partner organizations' websites. E-mail leungdan@hawaii.edu or call (808) 734-9473 for more information.)



“Hawaii 5210 Let’s Go!” is an initiative to promote healthy eating and active living and prevent childhood obesity in Hawaii through coordinated, collaborative, locally based health education campaign. The Initiative provides the infrastructure to promote a consistent message of healthy lifestyles through community partnerships, in order to optimize awareness and action among Hawaii’s keiki and their families. Hawaii 5210 is based at the **University of Hawaii John A. Burns School of Medicine Department of Pediatrics** and is lead by **HICORE**, the **Hawaii Initiative for Childhood Obesity Research and Education**.

The 5-2-1-0 slogan frames the healthy living message by encouraging **behaviors associated with health** in children for each day, including

-  **5** or more fruits and vegetables
-  **2** hours or less of screen time
-  **1** hour or more of physical activity, and
-  **0** (no) sugary beverages

Several states and programs across the country have used 5210, and similar slogans, successfully across the country to promote healthy eating and active living.

Cooking Up a Rainbow through fresh home style cooking is one of the core strategies that families can use to stay healthy together. Meals prepared and cooked at home are fresher, have less salt and fat, and are much more likely to include ingredients packed with nutrients. Cooking at home also helps children to learn about nutrition, meal planning and about household chores.

Hawaii 5,2,1,0 information & resources
for parents, teachers, and health educators are available at
<http://hawaii5210.org>

Simple Steps for a Healthy Ohana



EAT HEALTHY

5 FRUITS & VEGETABLES

Fruits and vegetables, including root vegetables such as taro (poi) and sweet potato, are packed with nutrients. To get the amount recommended, most of us need to increase the amount of fruits, roots and veggies we currently eat.

HEALTHY TIPS

- A** Be a role model - Include at least one fruit, root or vegetable at every meal and snack.
- B** When possible, avoid frying – try steaming, baking, stir-frying.
- C** Try-A-Bite rule - Offer new fruits, roots and veggies and encourage everyone in the family to try a few bites each time. It can take 7 to 10 tries to like a new food.

WATCH LESS

2 HOURS OF SCREEN TIME

Two hours or less of computer, video and TV screen time every day. Increased screen time has been linked to lower reading scores, behavioral problems and unhealthy weight.

HEALTHY TIPS

- A** Encourage your whole family to decrease screen time to 2 hours or less each day.
- B** Keep the TV and computers in a central location and out of your child's bedroom.
- C** Enjoy your family - turn off the TV when eating and talk about the day.

PLAY MORE

1 HOUR OF PHYSICAL PLAY

Activity that makes your heart pump faster and your body breathe harder make you strong, helps you feel good and think clearly. Kids in active families are more likely to be active adults.

HEALTHY TIPS

- A** Take gradual steps to increase your physical activity level.
- B** Do short amounts of activity several times a day until they add up to 60 or more minutes each day.
- C** Physical activity should be fun – swimming, surfing, paddling, walking, running, dancing, gardening and yes, even vacuuming!

CUT DOWN

0 SUGARY DRINKS

Sugary drinks such as soda, sweetened tea, sports drinks, fruit punch and other fruit-flavored drinks have little nutritional benefit. Sweetened beverages add empty calories, about 150 calories and 9 teaspoons of sugar per 12 oz. can of soda.

HEALTHY TIPS

- A** Encourage your family to love water. Serve it. Choose it. If it's there, people will drink it. And remember water has zero calories.
- B** Be wary of commercials. Juice products labeled “-ade”, “drink” or punch” often contain mostly corn syrup sweetener and less than 5% real juice.
- C** Avoid bringing sodas and sports drinks home. If it's there, the kids will drink it.



Breakfast is Best!



Why Eat Breakfast Everyday?

- Those who eat breakfast are more likely to maintain a healthy weight.
- Skipping breakfast can lead to overeating later in the day.
- Eat breakfast for a balanced supply of mental and physical energy.
- Gives families and friends a time to spend together.



Not Hungry in the Morning?

GET PLENTY OF SLEEP...

- Have your last meal or snack a few hours before bed.
- Tired kids are often not hungry. Sleep boosts energy levels and helps us focus.
- Children 5-12 years need 10 to 11 hours of sleep.
- Teens need 8.5 to 9.5 hours of sleep.
- Eat something small before school and then have a mid-morning snack.

Boost Your Energy & Brain Power!

**Breakfast Builds Better Bodies!
Breakfast is Fuel for School!**

Get More Information at Hawaii5210.Org

Fuel Up with Breakfast

BRAIN POWER



Better focus
Less distraction
Better school attendance



Better grades
Improved test scores
Better memory



Improved mood
Increased alertness
Boosted energy



Provides daily nutrients
Supports healthy weight

HAWAII 5210 LET'S GO! VISIT OUR WEBSITE WWW.HAWAII5210.ORG FOR ADDITIONAL RESOURCES.



A Special Message to School Principals: Introduction of The Hawaii 5210 Breakfast Promotion Campaign



LET'S GO!

HAWAII 5210 LET'S GO!
1319 PUNAHOU ST., SUITE 720
HONOLULU, HI 96826P 808-286-1042
F 808-945-1570
W HAWAII5210.ORG

Dear Elementary School Principal,

Breakfast is essential to our health and is related to positive academic outcomes, yet many children skip breakfast. We know this affects a child's behavior and focus as well as their health. The *Hawaii 5210 Breakfast Promotion Campaign* is asking you to help students be healthy and ready to learn by increasing healthy breakfast eating habits.

We have developed a *Hawaii 5210 Breakfast GO! Kit* that addresses healthy breakfast eating habits with ready-to-go resources, materials, and activities. The Go! Kit is aligned with the Department of Education's Wellness Guidelines and supports the DOE Food Services Breakfast Program.

The enclosed *Hawaii 5210 Breakfast GO! Kit* contains:

- Letters to Teachers and Parents
- Poster for Classroom
 - Break for Breakfast
 - Breakfast is Best!
- Handouts for Children-Parents
 - Break for Breakfast
 - Breakfast is Best!
- Breakfast Promotion Week Activities

We recommend these resources be introduced to your teachers and students sometime at the beginning of the year and again after the Winter holidays. Ideally, you could disseminate the parent/child materials and pick a few of the activities to be lead by the school administration, teachers, or involved parents and peers.

To help us tailor the Go! Kit to the needs of Hawaii's communities, please complete the short evaluation survey after the promotion is complete. The survey is available online as well: <https://www.surveymonkey.com/s/BreakfastGoKit>

We will encourage the teachers to submit their evaluations of the promotion.

Thank you for considering this promotion. We understand that the school day is busy and supporting small changes in daily routines, such as eating breakfast, can make big differences in the health and wellness of children and their families.

Please contact us if you have any questions.

Sincerely,

May Okihiro, MD and the Hawaii 5210 GO! Kit Team

HAWAII 5210 LET'S GO! VISIT OUR WEBSITE WWW.HAWAII5210.ORG FOR ADDITIONAL RESOURCES.



Break for Breakfast

Take a Few Minutes to Fuel Up



SIMPLE



Keep it Simple

- Eat a balanced breakfast.
- Include whole-grains (oatmeal, whole-wheat bread), protein (nut butters, milk, eggs, yogurt, lean breakfast meat).
- Add fresh fruits like papaya or banana.

SAVE TIME



Brown Bag Your Breakfast

- Pack breakfast and lunch with sandwiches and fruit.
- Eat breakfast at school. School breakfasts are inexpensive, nutritious and yummy!

EAT ON THE GO



Choose Healthy Fast Foods

- Breakfast at school is a quick way to start the morning.
- If you stop at a fast food restaurant, order a small size or share a larger size. Avoid fried and sugary foods.

EAT IN THE MORNING



Snack Mid-Morning

- Eat in the first few hours of your day.
- Pack a few finger foods to snack on for a boost before lunch.

More Information on Healthy Breakfast at Hawaii5210.org.

Skipping Breakfast?

National experts agree that eating breakfast is better than skipping it.

Fuel for School Eating breakfast leads to sharper focus, better memory, higher grades and improves mood!

Helps Keep a Healthy Weight Eating breakfast provides even energy throughout the day.

Cereal Again? Serve other breakfast choices too! Foods like chicken, rice, and noodles. Or try a new recipe!

How Much Sleep is Enough?

Sleep helps children stay healthier and do well in school. Rested children will be ready to eat breakfast before school.

Preschoolers (Ages 3–5)

11 – 13 Hours

School-Age (Ages 5–12)

11 – 13 Hours

Teens

8.5 – 9.5 Hours

HAWAII 5210 LET'S GO! VISIT OUR WEBSITE WWW.HAWAII5210.ORG FOR ADDITIONAL RESOURCES.



Chapter 1 Preface and Overview

How to use this Manual

1.1 “Grab and Go” – bullets of practical information and instructions

- This is a manual for those who want to cook and eat food that is delicious and healthy. You will see that each section and subsection is organized in paragraphs of **“teachable” concepts** that can be used to teach, train, and encourage others to explore further.
- The content is listed as bullets of practical information and instructions that will guide you in ways to cook and explore new foods with families and children, asking pertinent questions during your discovery.

1.2 A manual for teachers, health educators, youth workers, and parents



- Our goal is to provide families and educators with practical ideas and directions that can be easily applied in home kitchens or as fun, interactive learning projects! You will find several key messages and methods to inspire (not lecture) people to take action and eat healthier, helping them to understand the **reasons** behind the **action**.
- **Teachers, health educators and youth workers can use this manual as an adjunct activities guide** to incorporate cooking and food exploration activities into their curricula. Included are instructions to help educators translate textbook and nutrition knowledge into practical (and fun) action.

1.3 Translating nutrition information into practical steps

- This manual is intended to bridge the gap between all the **data** about nutrition, obesity, physical health, balanced diets, etc. and the **acts** of eating and cooking. For too long the gap between nutrition information and real world cooking has kept families from making progress in achieving healthy lifestyles. We do not go in depth into the science of nutrition – there is an overwhelming amount of material out there. The information in this manual is scientifically-based on current medical and nutrition knowledge and evidence-based on common eating and cooking behavior.

1.3 The “Tasty” Versus “Healthy” Conundrum

- **“Tasty” and “healthy” go together.** We want to remove any misconception that healthy foods are “bland and boring.” You don’t have to use expensive, hard to get ingredients to make delicious healthy dishes. This manual lays out a key strategy for making decisions on positive ingredient choices and the most efficient ways to utilize them.



Carrot Cake Parfait

1.5 Less is More – the “your food tastes good because you cook like a chef” fallacy

- This manual will not turn you into a professional chef. But, we can give you a solid base for exploring nutritious and appetizing new recipes. In fact, with the amazingly flavorful and fresh ingredients we find in Hawaiian markets, it is easy to create tasty

- **Local produce is harvested as it becomes ripe.** This means it contains the maximum amount of nutrients, top quality textures and best taste possible. When you buy local produce, it has taken a trip of minutes, not the days or weeks it takes imported goods to arrive at your local market. In order to survive the trip, imported produce must be picked earlier and with less of the natural flavors that make food naturally delicious.



- So, when you use top quality local products, you do not have to use complicated cooking methods, or add too much other “stuff” (heavy seasoning or flavoring, sauces or gravy) to make them tasty – they are the **main attraction!** This manual will show you simple ways to bring out, highlight or complement the inherent flavors in Hawaii produce.



Sautéed Watercress with minced garlic, drizzled with a little sesame oil.

1.6 Focus on Good Cooking Techniques for Good Food, not Recipes

- “If we teach you 100 recipes, you only know how to make 100 recipes. If we teach you how to cook, you can cook any recipe!” (*Chef Eddie Fernandez, retired Culinary Instructor, Kapiolani Community College*)
- By focusing on the cooking techniques, the science, the structures and compositions of recipes, this manual will enable you to apply the methods to any recipes you may find, create modifications with your favorite ingredients, improve the taste and make it healthier.

1.7 Drawing Parallels between Cultures

- Hawaii is at the crossroads of many food cultures. Which offer a wide variety of international techniques and ingredients for cooking.
- The best way to understand different cultures is to “identify the universal, and affirm the difference.” That means looking for parallels in cooking techniques and ingredient usage between cultures to understand the basics of cooking and the structure of the sauces and dishes. Then you can make the most of the all the local farm fresh products to create dishes with the best combination of salty, sweet, sour, bitter and the fifth taste sensation “umami” that is familiar to each culture.

1.8 No “Dumbing Down” for Children

- **We strongly believe that children and teens are inherently inquisitive and innovative.** By helping children and teens develop competencies in food preparation and cooking, along with giving them the factual knowledge about the science and art of cooking, they learn skill sets that will last them a lifetime.
- **It is a common misconception that in order to teach children to cook we should limit the number of ingredients and simplify the steps.** It is correct to teach age appropriate skill sets. But young learners are often less apprehensive than adults in trying something new and seemingly complicated. On the contrary, they will get bored if they are given too few tasks to do. Challenging children to accomplish more and helping them achieve will spur them to greater learning.
- **Platitudes do not change behavior** – exhortations such as “it is good for you” or “it is healthy” will not motivate someone to eat more vegetables and fruits. By showing children and teens that delicious dishes can be made in a home kitchen incorporating vegetables and fruits, you will inevitably open their palates to a world of foods and limitless possibilities!
- **Include children in making decisions for meal planning and shopping** – Choosing what to cook and buy is part of the exploration and adventure in healthy eating. If children are given healthy options to choose from, they build confidence in gaining control over their food choices and their food environment.

