

Food and sustainability



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K.W.L. chart

- ▶ What I already know?
- ▶ What I want to know?
- ▶ What I have learned?

FOOD VOCABULARY

- ▶ Nutrients
- ▶ Proteins, fats, carbon hydrates
- ▶ Vitamins, minerals, water, fiber and phytochemicals
- ▶ Vegetables, fruits, grains, legumes, meat, fish
- ▶ Digestion and metabolism
- ▶ Traditional country dishes
- ▶ Raw/cooked food
- ▶ Balanced healthy diet and health
- ▶ Fast food and obesity



FOOD consists of:

MACRONUTRIENTS (calories)

- FATS (animal and plant)
- PROTEINS (animal and plant)
- CARBOHYDRATES (simple and complex)

FOOD consists of

MICRONUTRIENTS (no calories)

We find good things (in fruits):

- VITAMINS,
- MINERALS,
- PHYTOCHEMICALS,
- WATER,
- FIBER.



SWEETENERS

NATURAL

- ▶ Raw Honey
- ▶ Natural Stevia
- ▶ Dates
- ▶ Coconut Sugar
- ▶ Maple Syrup



ARTIFICIAL

- ▶ Saccharin
- ▶ Sucralose
- ▶ Aspartame (Nutrasweet)
- ▶ Isomalt



SUSTAINABLE FOOD

- ▶ **Better technical knowledge on the environmental impacts of food**
- ▶ **Stimulating sustainable and locally food production**
- ▶ **Promoting sustainable and locally food consumption**
- ▶ **Reducing food waste and losses (Do not throw food away! Just eat it!)**
- ▶ **Improving food policy**

WHY TALK ABOUT SUSTAINABLE FOOD?

Food is essential to life. It also forms an important part of our cultural identity, and plays an important role in the economy.

People are aware that the food they eat is an important factor affecting their health, but what is less well known is the impact producing and consuming food has on the world's resources.

AGRICULTURE

▶ FRUITS PRODUCTION

▶ VEGETABLES PRODUCTION

▶ VITICULTURE



FRUITS



- ▶ are healthy,
- ▶ come from plants,
- ▶ most of them are convenient,
- ▶ have fiber, water, vitamins, minerals and phytochemicals (antioxidants),
- ▶ have significant chewing resistance.

FRUITS



- ▶ are fulfilling (most people are satisfied after one large apple, which contains 23 grams of sugar, 13 of which are fructose),
- ▶ when fructose hits your liver slowly and in small amounts, then your body can easily take care of fructose,
- ▶ fiber can reduce cholesterol levels, slow absorption of carbohydrates and increase satiety,
- ▶ tend to be high in several vitamins and minerals; especially vitamin C, potassium and folate,
- ▶ eat variety of fruits – different fruits contain different nutrients.

FRUITS



- ▶ Many human studies show that fruit intake is associated with lower risk of cholesterol, heart attacks, stroke, diabetes type II and some types of cancers,
- ▶ eating more of apples and oranges lead to automatic reduction in calorie intake,
- ▶ the main reason to avoid fruit include some sort of intolerance (fructose intolerance) or being on very low – carb / ketogenic diet.



FRUITS

- ▶ **Fruit juices and dried fruits are always a bad idea.**
- ▶ **Fruit juices contain a lot of sugar, no fiber and no chewing resistance.**
- ▶ **Dried fruits (like raisins) can be a problem as well. They are very high in sugar and it is easy to consume large amounts.**
- ▶ **Smoothies are somewhere in the middle. They are better than drinking fruit juice, but not as good as eating whole fruit.**

FRUITS - CALORIES

Nutritional Information

Fruit	Serving Size	Calories	Carbs	Protein	Fiber	Fat	Sodium
Apples*	1 Medium Apple	80	22g	0g	5g	0g	0mg
Peaches	1 Medium Peach	40	10g	.06g	1.5g	0g	0mg
Nectarines	1 Medium Nectarine	70	16g	1g	3g	1g	0mg
Plums	1 Medium Plum	36	8.6g	0.52g	1.0g	0.41g	0mg
Asian Pears	1 Medium Pear	59	13g	0.9g	4g	0.1g	0mg
Strawberries	8 Medium Berries	70	17g	1g	3g	0.5g	0mg
Raspberries	10 Raspberries	10	2.3g	0.2g	1.2g	0.1g	0.2mg
Blueberries	1 Cup Blueberries	83	21.0g	1.1g	3.5g	0.5g	1mg
Pumpkins**	1 Cup	49	12g	2g	3g	0g	0mg

*NOTE: Slight variation depending on variety; figures reflect an overall average for the fruit.

**NOTE: Figures are based on pumpkin being cooked, boiled, drained, without salt.

FRUIT PRODUCTION IN SLOVENIA

- ▶ organic (eco = bio), 20 %



- ▶ integrated, 80 %.



STATUS OF FRUIT PRODUCTION

- ▶ 10 fruit growing areas in Slovenia,
- ▶ 2 – 3 % of all agricultural land,
- ▶ 5.000 ha intensive orchards.
- ▶ 25 fruit species can be grown in Slovenia.

The mainly species of fruits in Slovenia

APPLES,
PEARS,
PLUMS,
PEACHES,
GRAPES,
APRICOTS,
STRAWBERRIES.



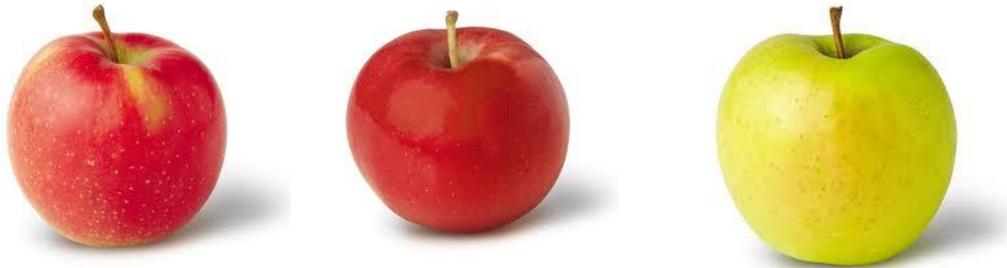
STATUS OF FRUIT PRODUCTION

The most important specie of fruits are **apples** with **70 %** of total fruit production.



The varieties of apples

-> NEW varieties of apples:
jonagold, idared, golden delices



-> OLD varieties of apples

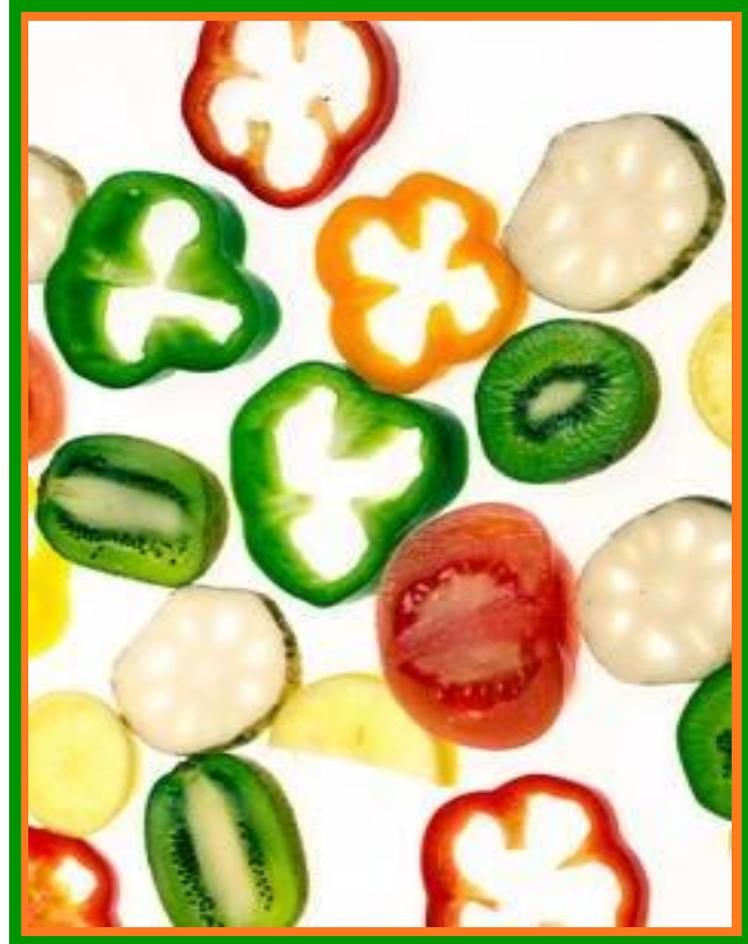
Under the *Skin of Fruits*

Under the skin of every apple, orange, banana, or fruit, there is more than just sweetness.



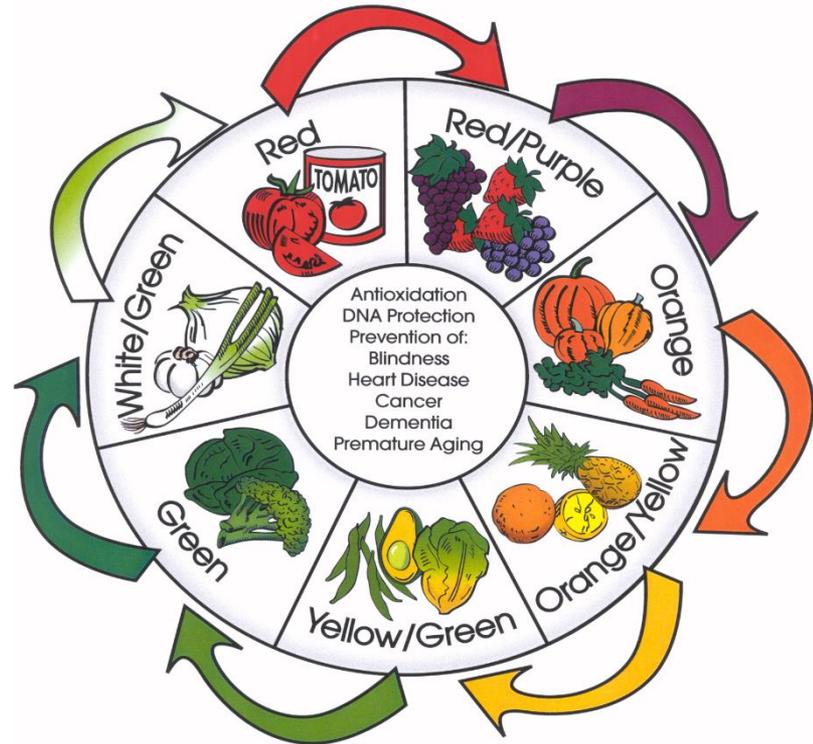
Colors -- lots of them

“ While modern Medicine science has discovered many impressive advances, nothing even comes close to the health-promoting, disease fighting benefits of colorful fruits and vegetables...”



The Colors of Health

Phytochemicals (plant chemicals) not only protect plants, they protect us too! From cancer to anti-aging, heart disease to eyesight, scientists focus on a range of health benefits.

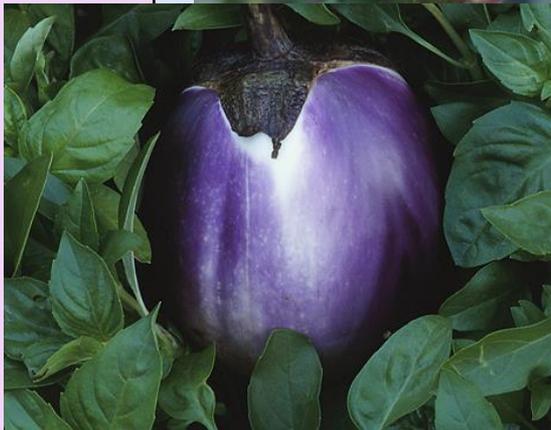


Variety

- ▶ Each color offers a different health benefit. Eat all the colors to get all the benefits.
- ▶ No individual color does it all!



Blue/Purple



- ▶ The **blue/purple** group offers phytochemicals such as anthocyanins and phenolics.
- ▶ These benefit you by providing antioxidant and anti-aging effects.

Blue/Purple

- ▶ It helps to maintain **memory function**, **prevent urinary tract infection**, and it lowers the **risk of some cancers**.



What can I eat in the Blue/Purple Group

- ▶ Blackberries
- ▶ Blueberries
- ▶ Plums
- ▶ Currants
- ▶ Purple Grapes
- ▶ Raisins



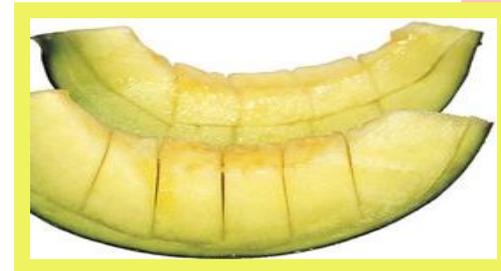
Green



- ▶ Green fruits contain lutein and indoles, have the potential to lower the risk of some cancers, promote vision health, and are partially responsible for strong bones and teeth.

What can I eat that is Green?

- ▶ Avocados
- ▶ Honeydew Melon
- ▶ Limes
- ▶ Grapes
- ▶ Kiwi



White and Brown

- ▶ **Alliicin**, the photochemical in this group is responsible for **heart health**, **lowering Cholesterol levels**, and lowering some risks of **cancer**.



What can I eat that is in the white/brown group?



- ▶ Bananas
- ▶ Dates
- ▶ Brown Pears
- ▶ Ginger

Yellow/Orange



Yellow & orange fruits & vegetables contain vitamin C, carotenoids, & bioflavonoids, which help maintain a healthy heart, vision health, a healthy Immune System, & lowers risk of some cancers.

What can I eat that is Yellow or Orange?

- ▶ Tangerines
- ▶ Oranges
- ▶ Lemons
- ▶ Pineapple
- ▶ Mango
- ▶ Cantaloupe
- ▶ Papaya



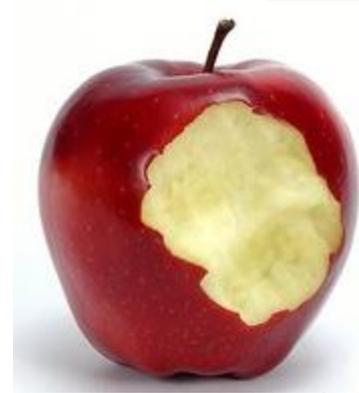
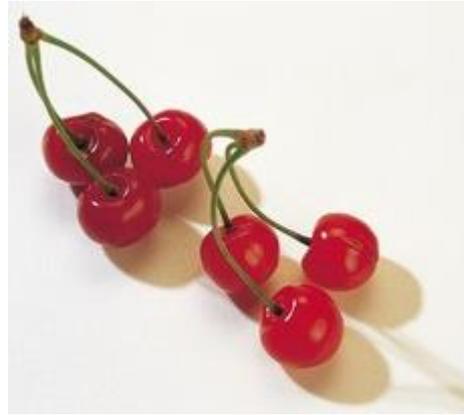
RED

- ▶ The **Red** group offers photochemicals such as **quercetin, lycopenes & anthocyanins**.
- ▶ These provide antioxidants & anti-aging effects.
- ▶ Helps maintain **memory function, healthy heart, urinary tract health, & lowers the risk of some cancers.**



What can I eat in the Red Group

- ▶ Red apples
- ▶ cherries, berries
- ▶ cranberries
- ▶ raspberries
- ▶ currants
- ▶ pomegranates
- ▶ watermelon
- ▶ nectarines
- ▶ peaches
- ▶ strawberries



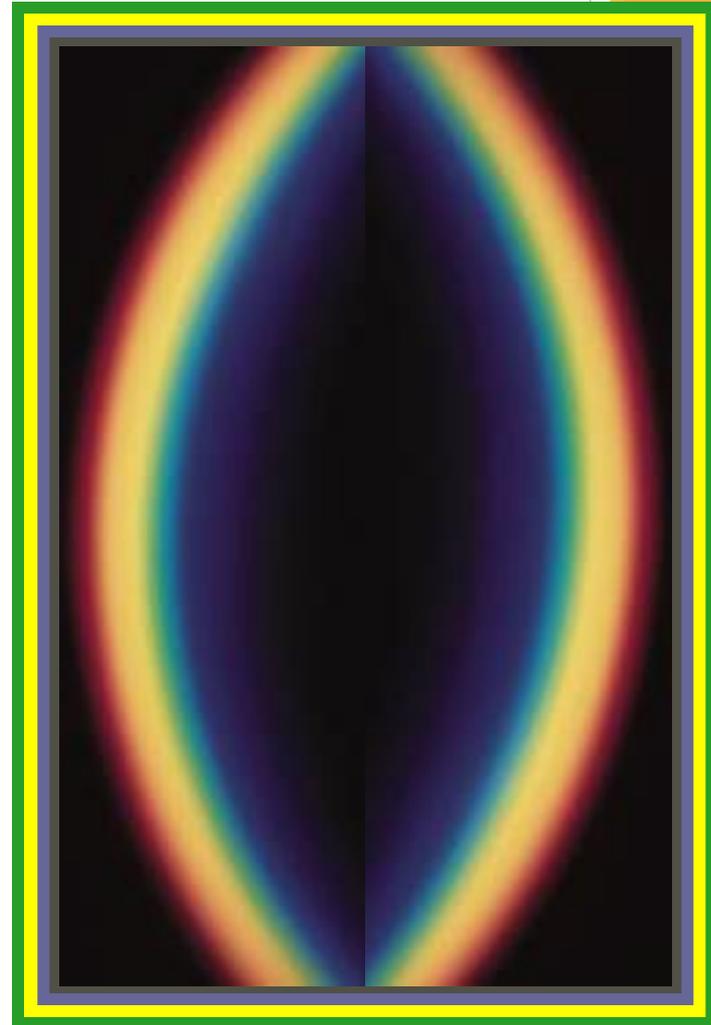
How much should we eat?

- ▶ Minimum – 5 servings a day
- ▶ Recommended – up to 11 servings a day



Phytochemicals

Just as colors give the rainbow its life; so do phytochemicals give us a chance for a healthy life.



Eat the Color Way!

*Reduce
your risk
of disease
& be
healthy!!!*



HEALTH BENEFITS OF EATING FRUITS

- ▶ Lower your risk at stroke, heart disease and high blood pressure!
- ▶ Reduce your risk of type diabetes 2!
- ▶ Lower your risk of certain types of cancer!
- ▶ Help manage weight!
- ▶ Look and feel great!