The Whole Food Advantage

Better nutrition for better living

"The best sources of vitamins and minerals are found in whole foods."

— Dr. Royal Lee

What is the whole food advantage?

Whole foods — peas, radishes and beets, for example — provide a positive impact on our lives because they deliver natural, nourishing benefits. That's why, since 1929, Standard Process has been dedicated to supplements that support the whole food philosophy introduced by Dr. Royal Lee. Dr. Lee's goal was to provide nutrients as they are found in nature, where their nutritional potential and efficacy can be realized.

That's why we start with foods that you can find at your local grocery store. Like any good cook, we prepare them in a way that safeguards their nutritional value. The resulting ingredients are then added to a complex formula that may include whole food extracts; animal tissue extracts and concentrates; botanicals; whole food isolates; and synthetic ingredients as required to meet our high formula standards.

More than

90% of Americans

do not meet the recommended minimum vegetable and fruit intakes

Lee-Kwan SH, Moore LV, Blanck HM, Harris DM, Galuska D. Disparities in State-Specific Adult Fruit and Vegetable Consumption — United States, 2015. MMWR Morb Mortal Wkly Rep 2017;66:1241–1247

Only **12.2% of adults**

meet the daily fruit intake recommendation

Lee-Kwan SH, Moore LV, Blanck HM, et al. Disparities in state-specific adult fruit and vegetable consumption — United States, 2015. MMWR. 2017;66:1241–1247.

Only **9.3% of adults**

meet the daily vegetable intake recommendation

Lee-Kwan SH, Moore LV, Blanck HM, et al. Disparities in state-specific adult fruit and vegetable consumption — United States, 2015. MMWR. 2017;66:1241–1247.

What is a whole food supplement?

A whole food supplement is a complex formula that includes plant and animal extracts, desiccates, or other ingredients as required to create the best nutritional supplement for each health indication. After all, it is in this whole food state that nutrition is typically harnessed and presented to the body.

Where do whole foods come from?

Many of our ingredients are grown locally on our certified organic farm. This allows us to control their quality throughout processes that may require chopping, dicing, juicing, and/or drying — everything From Soil to Supplement.

Whole foods include:

- Alfalfa
- Barley Grass
- Beets
- Brussels Sprouts
- Buckwheat
- Kale
- Kidney Beans
- Oats
- Peavine
- Spanish Black Radish
- Swiss Chard

10 servings
of fruits and vegetables per day can add years to your life

International Journal of Epidemiology, Volume 46, Issue 3, June 2017, Pages 1029–1056

Less than 30%
of Americans meet the recommended intake of green fruits and vegetables

U.S. Department of Agriculture (USDA). MyPyramid.gov 2009. Available via: http://www.mypyramid.gov/index.html. Accessed 21 July 2009.

8 out of 10
Americans have some sort of gap in phytonutrient intake

U.S. Department of Agriculture (USDA). MyPyramid.gov 2009. Available via: http://www.mypyramid.gov/index.html. Accessed 21 July 2009.

What are phytonutrients?

The Color of Food

Phytonutrients are natural, plant-derived compounds that support life and promote health. They give many whole foods their signature colors, and different colors deliver different benefits.

The human body needs phytonutrients in a different way than it needs nutrients like protein, vitamins, and minerals. Phytonutrients are uniquely able to satisfy free radicals circulating in the body looking for electrons. By providing electrons, phytonutrients prevent free radicals from taking electrons from proteins or other nutrients — a "theft" that leads to oxidative stress. In fact, a 2014 meta-analysis found that eating more vegetables resulted in lower risks of all-cause mortality (Wang 2014).

***Green** helps:*
- Support immunity
- Support gene expression

***Red** helps:*
- Support the heart and blood vessels
- Support muscle development
- Support skin

***White** helps:*
- Support the immune system
- Support a healthy inflammatory response
- Support weight management
- Manage healthy cholesterol

***Purple** can:*
- Support memory
- Support the gut
- Support a healthy heart

***Yellow** or **orange** can:*
- Support the gut
- Support the eyes
- Support the skin
- Support the immune system

Oats

Why Oats are important:

- Play a role in glucose management and cardiovascular health management
- Top oat varieties include increased levels of phytochemicals
- Provide beta-glucan — a beneficial soluble fiber
- Avenanthramides, which are exclusive to oats, have antioxidant and healthy inflammatory response properties

Oats contain

⊕ **Fiber: Beta-Glucan, Arabinoxylan, Type 1 Resistant Starch**
Supports healthy cholesterol levels, cardiovascular health, and healthy bowel function

⊕ **Lignans: Lariciresinol, Medioresinol, Pinoresinol, Matairesinol, Syringaresinol**
Large plant phenolic compounds that bypass human digestion

Feeds gut bacteria

Provides antioxidant activity

⊕ **Avenanthramides: A, B, C, E**
Phenolic acids exclusive to oats

Antioxidant and healthy inflammatory response

Bitter perception

⊕ **Saponins: Avenacoside A and B**
Exclusive saponins to oats emerging as promoting healthy bioactivity

Supports the immune system

Supports healthy cholesterol and blood glucose levels

⊕ **Flavanones: Neohesperidin**
A type of colorless flavonoid

Supports antioxidant activity

Key Nutrients

⊕ **Manganese**
Essential mineral incorporated in enzymes that metabolizes macronutrients

Helps protect mitochondria from oxidation and forms both collagen and cartilage

⊕ **Biotin**
B vitamin necessary for energy, metabolism, histone modification, gene regulation, and cell signaling

⊕ **Copper**
Essential mineral required for proper usage of iron in the body, neurotransmissions, and maturation of connective tissues

⊕ **Fiber**
Supports healthy cholesterol levels, cardiovascular health, and healthy bowel functions

⊕ **Phosphorus**
A mineral component of bones and teeth

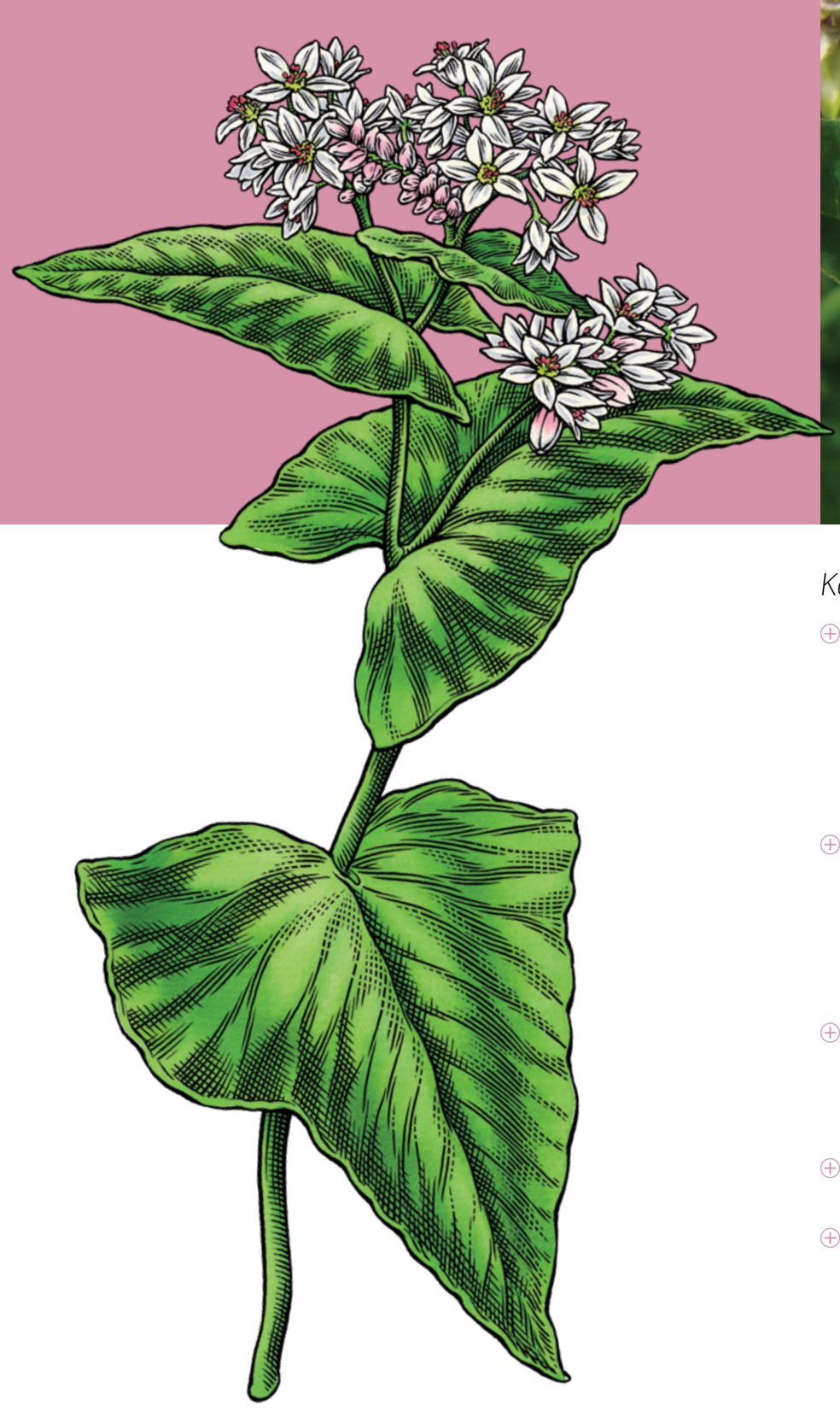
Involved in protein formation, cell repair, contractions, and nerve signaling

Part of ATP molecules that store energy in the body

Buckwheat

Why Buckwheat is important:

- The leaves, flowers, stems, and fruit of the buckwheat contain many nutrients and bioactive compounds
- Phytoactive compounds are abundant and the compounds aid in healthy inflammatory response, glucose management, and cardiovascular health



Buckwheat contains

Flavonols: Rutin, Quercetin
A type of flavonoid that supports antioxidant and healthy inflammatory response

Carotenoids: Beta Carotene, Lutein, Zeaxanthin
Potent antioxidants

Anthocyanidins
Purple and red pigments with strong antioxidant and healthy inflammatory response

Chlorophyll
Green pigment in plants with potential healthy inflammatory response and antioxidant activity

Key Nutrients

Iron
Essential mineral that is a component of hemoglobin required to aid the transport of oxygen through the body

A cofactor in many enzymes in the body that are required for normal function of making red blood cells, hormones, and connective tissue

Magnesium
An essential mineral that is involved in many different regulatory processes including muscle and nerve function, immunity, blood glucose regulation, and blood pressure.

Vital for protein, bone, and DNA production

Manganese
Essential mineral incorporated in enzymes that metabolizes macronutrients

Helps protect mitochondria from oxidation

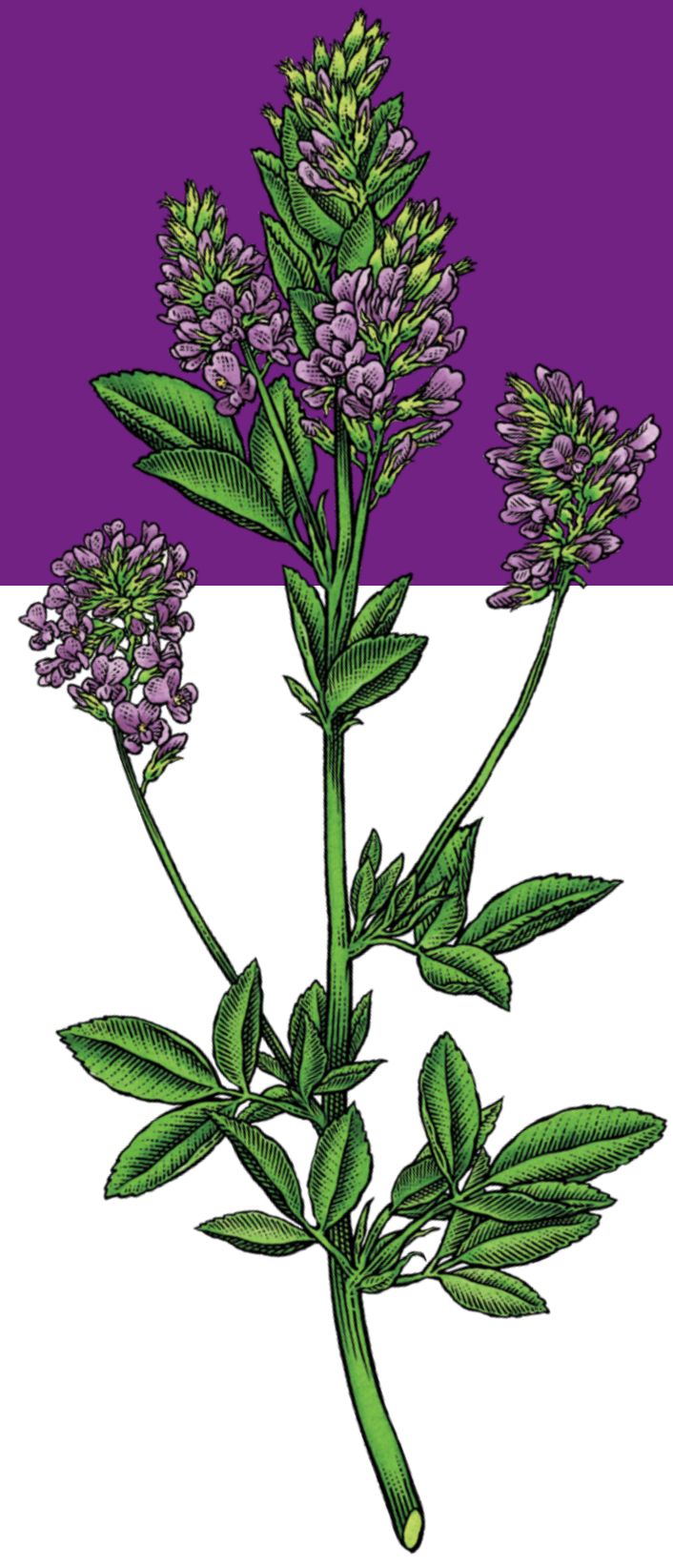
Vitamin K
Vital for blood clotting and healthy bones

Potassium
Supports healthy blood pressure

Alfalfa

Why Alfalfa is important:

- Contains a unique blend of protein, B vitamins, and minerals
- Delivers essential nutrients and phytoactive compounds
- Contains saponins that support the immune system
- Supports healthy blood glucose levels



Alfalfa contains

⊕ **Flavones: Apigenin, Luteolin**
A type of flavonoid that supports antioxidant and healthy inflammatory response

⊕ **Chlorophyll**
Green pigment in plants with potential healthy inflammatory response and antioxidant activity

⊕ **Saponins**
Supports the immune system

Supports healthy cholesterol and blood glucose levels

⊕ **Flavonols: Quercetin**
A type of flavonoid that supports antioxidant and healthy inflammatory response

⊕ **Carotenoids**
Potent antioxidants

Key Nutrients

⊕ **Manganese**
Essential mineral incorporated in enzymes that metabolizes macronutrients

Helps protect mitochondria from oxidation and forms both collagen and cartilage

⊕ **Biotin**
B vitamin necessary for energy, metabolism, histone modification, gene regulation, and cell signaling

⊕ **Riboflavin**
Water-soluble vitamin vital for energy production, cell function, metabolism, and growth/development

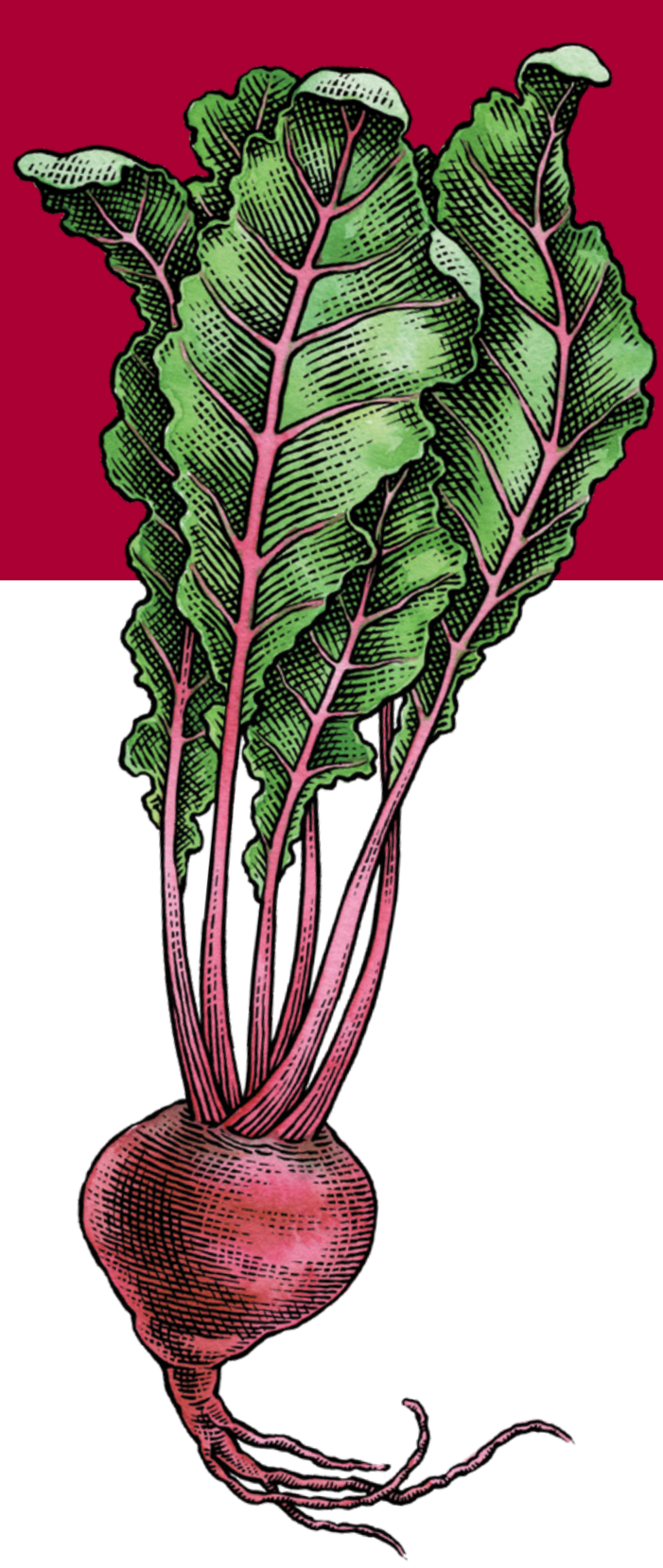
⊕ **Copper**
Essential mineral required for proper usage of iron in the body, neurotransmissions, and maturation of connective tissues

⊕ **Pantothenic Acid**
Water-soluble vitamin important for energy metabolism, enzyme activation, signal transduction, and biosynthesis of fats and cholesterol

Beetroot

Why Beetroot is important:

- High concentration of nitrates that support exercise performance and cardiovascular health
- Healthy inflammatory response support from flavones
- Contains fiber, which aids healthy digestion and supports cardiovascular health
- Contains flavonols, such as quercetin, that support antioxidant activity



Beets contain

⊕ **Quercetin**
A type of flavonoid that supports antioxidant and healthy inflammatory response

⊕ **Nitrate**
Supports exercise performance and cardiovascular health

⊕ **Betalains**
Natural pigments with antioxidant properties

⊕ **Lignans**
Large plant phenolic compounds that bypass human digestion, feed gut bacteria, and provide antioxidant activity

⊕ **Flavones**
A type of flavonoid that supports antioxidant and healthy inflammatory response

Key Nutrients

⊕ **Folate**
An essential vitamin used in synthesis of DNA and RNA, along with amino acid metabolism

⊕ **Copper**
Essential mineral required for proper usage of iron in the body, neurotransmissions, and maturation of connective tissues

⊕ **Manganese**
Essential mineral incorporated in enzymes that metabolizes macronutrients

Helps protect mitochondria from oxidation and forms both collagen and cartilage

⊕ **Iron**
Essential mineral that is a component of hemoglobin required to aid the transport of oxygen through the body

A cofactor in many enzymes in the body that are required for normal function of making red blood cells, hormones, and connective tissue

⊕ **Fiber**
Supports healthy cholesterol levels, cardiovascular health, and healthy bowel functions

Peavine

Why Peavine is important:

- Has lignans that contain large plant polyphenolic compounds which feed gut bacteria
- Supports antioxidant and healthy inflammatory response via flavanols
- Saponins support the immune system, healthy cholesterol levels, and blood glucose levels

Peavine contains

Lignans
Large plant phenolic compounds that bypass human digestion, feed gut bacteria, and provide antioxidant activity

Chlorophyll
Green pigment in plants with potential healthy inflammatory response and antioxidant activity

Carotenoids: Lutein, Zeaxanthin
Potent antioxidants

Flavanols: Catechin, Epicatechin
A type of flavonoid that supports antioxidant activity and vascular health

Contains healthy inflammatory response properties

Flavonols: Quercetin, Kaempferol
A type of flavonoid that supports antioxidant and healthy inflammatory response

Saponins
Supports the immune system

Supports healthy cholesterol and blood glucose levels

Key Nutrients

Vitamin K
Vital for blood clotting and healthy bones

Vitamin E
A micronutrient with antioxidant activity that supports the immune system and metabolism

Biotin
B vitamin necessary for energy, metabolism, histone modification, gene regulation, and cell signaling

Riboflavin
Water-soluble vitamin that is vital for energy production, cell function, metabolism, and growth/development

Magnesium
An essential mineral that is involved in many different regulatory processes including muscle and nerve function, immunity, blood glucose regulation, and blood pressure

Vital for protein, bone, and DNA production

Kale

Why Kale is important:

- Cruciferous vegetable associated with the production of detoxification enzymes and antioxidants
- Contains glucosinolates that, when activated by myrosinase, positively affect cardio health

Kale contains

⊕ Chlorophyll
Green pigment in plants with potential healthy inflammatory response and antioxidant activity

⊕ Myrosinase
Enzyme found in plant tissue that initiates conversion of glucosinolates to bioactive isothiocyanates

⊕ Glucosinolates
Sulfur-containing secondary metabolites, mostly found in cruciferous vegetables

Activated by myrosinase from the plant, or after ingestion by gut bacteria

Associated with positive effects stemming from antioxidant activity such as cardio health and detoxification support

⊕ Carotenoids: Lutein, Beta Carotene
Potent antioxidants

⊕ Flavonols: Kaempferol, Quercetin
A type of flavonoid that supports antioxidant and healthy inflammatory response

⊕ Fiber
Supports healthy cholesterol levels, cardiovascular health, and healthy bowel function

⊕ Lignans
Large plant phenolic compounds that bypass human digestion, feed gut bacteria, and provide antioxidant activity

Key Nutrients

⊕ Iron
Essential mineral that is a component of hemoglobin required to aid the transport of oxygen through the body

A cofactor in many enzymes in the body that are required for normal function of making red blood cells, hormones, and connective tissue

⊕ Vitamin K
Vital for blood clotting and healthy bones

⊕ Manganese
Essential mineral incorporated in enzymes that metabolizes macronutrients

Helps protect mitochondria from oxidation and forms both collagen and cartilage

⊕ Calcium
The most abundant mineral in the body

A key structure of bones

A component of muscle function, vascular contraction, nerve transmission, cellular signaling, and hormone secretion

⊕ Magnesium
An essential mineral that is involved in many different regulatory processes including muscle and nerve function, immunity, blood glucose regulation, and blood pressure

Vital for protein, bone, and DNA production

Brussels Sprouts

Why Brussels Sprouts are important:

- Rich in glucosinolates that support cardio health and detoxification
- Contain myrosinase that initiates the conversion of glucosinolates to bioactive isothiocyanates

Brussels Sprouts contain

⊕ **Chlorophyll**
Green pigment in plants with potential healthy inflammatory response and antioxidant activity

⊕ **Myrosinase**
Enzyme found in plant tissue that initiates conversion of glucosinolates to bioactive isothiocyanates

⊕ **Glucosinolates: Glucobrassicin, Glucoiberin, Sinigrin**
Building blocks for bioactive isothiocyanates

⊕ **Carotenoids: Lutein, Beta Carotene**
Sulfur-containing secondary metabolites, mostly found in cruciferous vegetables

Activated by myrosinase from the plant, or after ingestion by gut bacteria

Associated with positive effects stemming from antioxidant activity such as cardio health and detoxification support

⊕ **Flavones**
A type of flavonoid that supports antioxidant and healthy inflammatory response

⊕ **Flavonols: Kaempferol, Quercetin**
A type of flavonoid that supports antioxidant and healthy inflammatory response

⊕ **Fiber**
Supports healthy cholesterol levels, cardiovascular health, and healthy bowel function

⊕ **Lignans**

Large plant phenolic compounds that bypass human digestion, feed gut bacteria, and provide antioxidant activity

Key Nutrients

⊕ **Iron**
Essential mineral that is a component of hemoglobin required to aid the transport of oxygen through the body

A cofactor in many enzymes in the body that are required for normal function of making red blood cells, hormones, and connective tissue

⊕ **Vitamin K**
Vital for blood clotting and healthy bones

⊕ **Selenium**
Essential trace mineral involved in reproduction, thyroid hormone metabolism, and DNA synthesis

⊕ **Calcium**
The most abundant mineral in the body

A key structure of bones

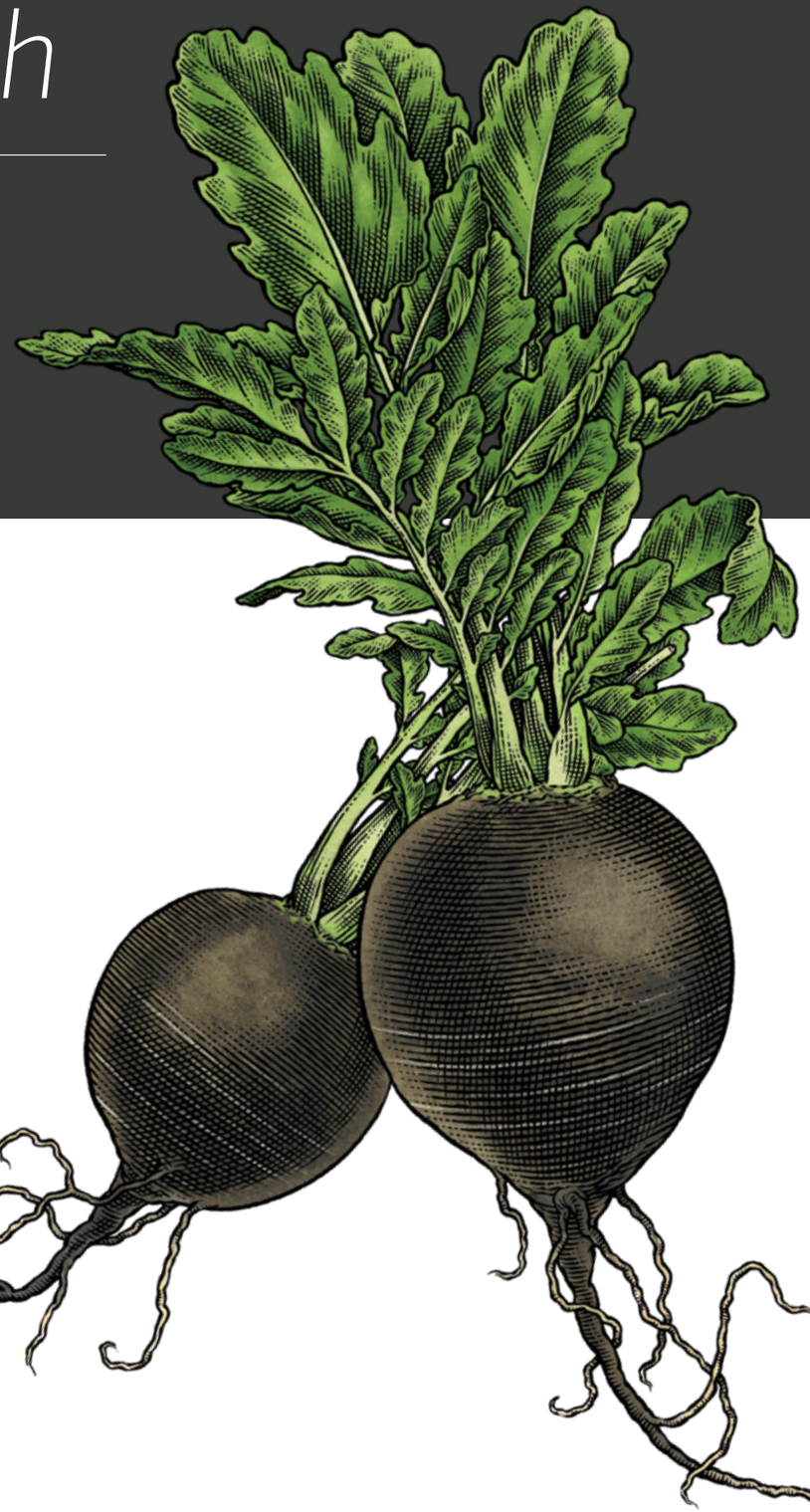
A component of muscle function, vascular contraction, nerve transmission, cellular signaling, and hormone secretion

⊕ **Fiber**
Supports healthy cholesterol levels, cardiovascular health, and healthy bowel function

Spanish Black Radish

Why Spanish Black Radish is important:

- Cruciferous vegetable associated with production of detoxification enzymes
- Supports healthy digestion, healthy liver, and healthy gallbladder function
- Contains tannins, as noted by their distinct dark color, that contribute to antioxidant activity



Spanish Black Radish contains

⊕ **Fiber**
Supports healthy cholesterol levels, cardiovascular health, and healthy bowel function

⊕ **Myrosinase**
Enzyme found in plant tissue that initiates conversion of glucosinolates to bioactive isothiocyanates

⊕ **Glucosinolates**
Sulfur-containing secondary metabolites, mostly found in cruciferous vegetables

Activated by myrosinase from the plant, or after ingestion by gut bacteria

Associated with positive effects stemming from antioxidant activity such as cardio health and detoxification support

⊕ **Tannins**
Large set of diverse phenolic compounds found in plants

Contributes to their antioxidant activity

Provides their distinct, dark color

⊕ **Saponins**
Supports the immune system

Supports healthy cholesterol and blood glucose levels

Key Nutrients

⊕ **Copper**
Essential mineral required for proper usage of iron in the body, neurotransmissions, and maturation of connective tissues

⊕ **Fiber**
Supports healthy cholesterol levels, cardiovascular health, and healthy bowel function

⊕ **Selenium**
Essential trace mineral involved in reproduction, thyroid hormone metabolism, and DNA synthesis

⊕ **Potassium**
Supports healthy blood pressure

⊕ **Folate**
An essential vitamin used in synthesis of DNA and RNA, along with amino acid metabolism

Kidney Beans

Why Kidney Beans are important:

- Contain flavanols that support antioxidant activity
- Contain flavonols, such as quercetin, that support antioxidant activity

Kidney Beans contain

Chlorophyll
Green pigment in plants with potential healthy inflammatory response and antioxidant activity

Flavanols
A type of flavonoid that supports antioxidant activity and vascular health

Contains healthy inflammatory response properties

Lignans
Large plant phenolic compounds that bypass human digestion, feed gut bacteria, and provide antioxidant activity

Phenolic Acids
Phytoactive compounds that support antioxidant activity and vascular health

Flavonols: Quercetin, Kaempferol, Rutin
A type of flavonoid that supports antioxidant and healthy inflammatory response

Saponins
Supports the immune system

Supports healthy cholesterol and blood glucose levels

Key Nutrients

Iron
Essential mineral that is a component of hemoglobin required to aid the transport of oxygen through the body

A cofactor in many enzymes in the body that are required for normal function of making red blood cells, hormones, and connective tissue

Magnesium
An essential mineral that is involved in many different regulatory processes including muscle and nerve function, immunity, blood glucose regulation, and blood pressure

Vital for protein, bone, and DNA production.

Riboflavin
Water-soluble vitamin that is vital for energy production, cell function, metabolism, and growth/development

Biotin
B vitamin necessary for energy, metabolism, histone modification, gene regulation, and cell signaling

Calcium
The most abundant mineral in the body

A key structure of bones

A component of muscle function, vascular contraction, nerve transmission, cellular signaling, and hormone secretion

Barley Grass

Why Barley Grass is important:

- Contains phytoactive compounds that support antioxidant activity
- Contains chlorophyll that supports healthy inflammatory response activity

Barley Grass contains

⊕ **Flavonols: Saponarin, Lutonarin**
A type of flavonoid that supports antioxidant and healthy inflammatory response

⊕ **Flavones: Luteolin, Cynaroside, Orientin**
A type of flavonoid that supports antioxidant and healthy inflammatory response

⊕ **Chlorophyll**
Green pigment in plants with potential healthy inflammatory response and antioxidant activity

⊕ **Phenolic Acids: Ferulic Acid, Chlorogenic Acid**
Phytoactive compounds that supports antioxidant activity and vascular health

⊕ **Fiber: Arabinoxylan**
Supports healthy cholesterol levels, cardiovascular health, and healthy bowel function

Key Nutrients

⊕ **Riboflavin**
Water-soluble vitamin that is vital for energy production, cell function, metabolism, and growth/development

⊕ **Biotin**
B vitamin necessary for energy, metabolism, histone modification, gene regulation, and cell signaling

⊕ **Manganese**
Essential mineral incorporated in enzymes that metabolizes macronutrients

Helps protect mitochondria from oxidation and forms both collagen and cartilage

⊕ **Iron**
Essential mineral that is a component of hemoglobin required to aid the transport of oxygen through the body

A cofactor in many enzymes in the body that are required for normal function of making red blood cells, hormones, and connective tissue

⊕ **Potassium**
Supports healthy blood pressure

Swiss Chard

Why Swiss Chard is important:

- Healthy inflammatory response effects through betalains
- Flavonols that support antioxidant activity and vascular health
- Lignans provide insoluble fiber that feed gut bacteria
- Compounds that support glucose management and healthy inflammatory response

Swiss Chard contains

⊕ **Lignans**
Large plant phenolic compounds that bypass human digestion, feed gut bacteria, and provide antioxidant activity

⊕ **Chlorophyll**
Green pigment in plants with potential healthy inflammatory response and antioxidant activity

⊕ **Carotenoids: Lutein, Zeaxanthin, Beta Carotene**
Potent antioxidants

⊕ **Flavonols: Kaempferol, Quercetin**
A type of flavonoid that supports antioxidant activity and healthy inflammatory response

⊕ **Betalains**
Natural pigments with antioxidant properties

Key Nutrients

⊕ **Vitamin K**
Vital for blood clotting and healthy bones

⊕ **Iron**
Essential mineral that is a component of hemoglobin required to aid the transport of oxygen through the body

A cofactor in many enzymes in the body that are required for normal function of making red blood cells, hormones, and connective tissue

⊕ **Potassium**
Supports healthy blood pressure

⊕ **Magnesium**
An essential mineral that is involved in many different regulatory processes including muscle and nerve function, immunity, blood glucose regulation, and blood pressure

Vital for protein, bone, and DNA production

⊕ **Selenium**
Essential trace mineral involved in reproduction, thyroid hormone metabolism, and DNA synthesis

Changing lives is our passion and has been since our company's inception in 1929. This passion is what drove our founder, Dr. Royal Lee, to develop and pioneer the first whole food supplement on the market — the revolutionary Catalyn®.

At Standard Process:

- We change lives with our whole food philosophy.
- We grow ingredients on our certified organic farm in Wisconsin.
- We're serious about quality.
- We make products to support the health of the whole family.
- We partner with health care professionals.
- We've been trusted for generations.

A Balanced Approach to Wholistic Health

We believe there is a direct connection between the earth, what you consume, and your overall well-being.

From seed, to soil, to supplement, we meticulously cultivate high-quality, nutrient-dense nutrition.

Standard Process®