

# Latin American Vegan Foods High in Iron

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Average Latin American diets include a lesser variety of food products compared to the myriad of Latin American fruits, vegetables, grains, and legumes rich in nutrients and flavors that indigenous Latin American people used and still use today. Many interesting ingredients high in iron are available in indigenous and traditional Latin American gastronomy.

Iron is an essential nutrient that helps our blood carry oxygen inside our body. There are two types of iron: heme and non-heme iron. Both are found in animal flesh. Non-heme iron is less well absorbed than heme iron, though there are ways to enhance absorption. For more information, see <https://www.vrg.org/nutrition/iron.php> Plant foods do not contain heme iron, but non-heme iron is found in plant foods including legumes, seeds, seaweeds, and leafy greens.

Both the World Health Organization and the U.S. Recommended Dietary Allowances (RDA) call for higher intakes of iron for vegetarians than for nonvegetarians.<sup>1,2</sup> The U.S. RDA suggests that vegetarian/vegan men and women after menopause should consume approximately 14 mg of iron daily, and vegetarian/vegan premenopausal women 32 mg. You can read more about iron on [The Vegetarian Resource Group's website](#).

Beans are one of the best non-heme iron sources. Not only do they have a high iron content but also the different processes they can undergo, such as cooking, grinding, and fermenting can improve iron absorption. Beans are a staple food from Latin America and can contain from two to almost seven milligrams of iron per cup of cooked beans. There are around 150 varieties of beans worldwide, of which 50 are found in Mexico. The most commonly used beans in Mexico are common beans (such as black turtle beans), *comba*, *ayocote*, and *tepari*. Beans are categorized according to their color as black, yellow, white, purple, brown or *bayo*, *piebald*, and flecked or *moteado*.<sup>3</sup> Black and brown beans are the most preferred and are usually eaten fried as a side-dish known as refried beans. Chickpeas provide the highest amount of iron among beans, with 6.8 mg per cup of cooked chickpeas.

The genetic crop diversity of Peru is one of the most important genetic pool resources in Latin America. In Peru, seaweeds incredibly high in iron are used especially by indigenous people who live near the Andes.<sup>4</sup> Fresh *yuyo* seaweed provides up to 10.6 mg of iron per 100 grams (about 3 ounces). It has a red color and is usually eaten raw. *Cushuro* seaweed is a spherical green blueish cyanobacterium that resembles grapes. Both are found in lagoons at the foothills of the Andes. Currently, the Peruvian government and universities are working on producing food additives and supplements made from *cushuro* to increase iron and protein consumption and reduce malnutrition.<sup>6</sup>

Another important source of iron is green leafy vegetables, such as *quelites*. In Mexico there are more than 350 species of *quelites*. Example of *quelites* are *chepiles*, *chaya*, *huauzontle*, *verdolaga*, *quintonil*, and *romeritos*. The word *quelite* comes from the Nahuatl word *quilitl*, which means tender edible plant. Nahuatl is the language spoken by most indigenous people in Mexico, the *Nahuas*. *Quelites* might include the whole plant, branches, tender leaves, or stems.<sup>5</sup> Despite *quelites* being highly nutritious when cooked, the average Mexican diet does not include them as frequently as diets of indigenous people. In order to better absorb iron from *quelites*, it is important to cook them.

Among Latin American vegetables high in iron, we can find *crucetas*, *tomatillo*, and different types of chilies, such as Xalapeño pepper and *chilaca*. These vegetables provide two to six milligrams of iron per portion.<sup>6</sup> *Crucetas* like cactus, form part of the cactaceae family. Similar to cactus in their color, texture and flavor, their shape is similar to a three-spike star or three-crossing layers. If you do not like cactus because of its mucilage, you might want to try *crucetas* since they barely have mucilage.

*Tomatillo* is a small, green fruit like a tomato wrapped in a dry peel. It is fundamental in dishes in Mexico and Guatemala, such as green sauces, green *chilaquiles*, and *tacos* sauce. Its vitamin C content helps to increase iron absorption.

Some Latin American fruits have good amounts of iron as well; however, if they are consumed fresh, their iron content might be slightly less well absorbed compared to cooked plant foods.<sup>7</sup> In the following table, you can find traditional Latin American foods with the highest iron content. In some places, the table mentions traditional ways of eating which include animal products. These products can be replaced with vegan substitutes or omitted.

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The U.S. RDA suggests that vegetarian/vegan women after menopause and men should consume approximately 14 mg of iron daily, and vegetarian/vegan premenopausal women 32 mg.

Food	Description	Portion	Iron (mg)
<b>More than 4 mg</b>			
<i>Yuyo</i> , <sup>8</sup> cooked	Red seaweed usually eaten fresh in Peru.	1 cup (100 g)	10.6
<i>Cushuro, Nosco</i> Seaweed, dehydrated	Cyanobacteria in the form of little balls, that grows in lagoons below the Andes, in Peru. It is considered the food of the future because it has more iron and other nutrients than legumes per 100 grams (3 ounces) of dehydrated food.	12 g (about 0.5 ounces)	10.4
<i>Miel Negra</i> (Black Honey) or Blackstrap Molasses	This ingredient is obtained by boiling sugarcane juice 3 times. It is popular in Paraguay to make Black Honey Cake.	2 Tbsp. (30 ml)	7.2
Chickpeas, canned or cooked	Used mainly in Mexico, Paraguay, and Puerto Rico. Usually eaten with carrots, tomato, and onion.	1 cup (150 g)	6.8
<i>Crucetas</i> , cooked	Green vegetable with the shape of an elongated three-angle star, which gives them their name in Spanish, meaning “crossing.” They are from Mexico.	3 pieces about 4”/10 cm long each (150 g)	6.8
White Beans, cooked	White beans are traditionally cooked with sausage in various Latin American countries. Vegan sausage can be substituted.	1 cup (180 g)	6.6
Lentils, cooked	Latin American dishes with lentils combine them with banana and eggs (could use vegan eggs), or with pineapple. Lentils and pineapple are a traditional dish from Veracruz, México.	1 cup (200 g)	6.6
<i>Mamey</i> , raw	Native to Mexico and Central America, <i>mamey</i> is eaten in many Latin American countries. <i>Mamey</i> has a brown, rough peel and a reddish sweet interior. Besides being high in iron, it is also high in vitamin C.	1 piece about 6-3/4”/17 cm long (400 g)	6
<i>White or Purple Caimito</i> , <sup>9</sup> raw	Fruit from Colombia, Costa Rica, Argentina, and Ecuador. Also known as star apple, apple of milk, and milk breast, <i>caimito</i> looks like a small purple or white balloon with white pulp. It is considered one of the best <i>sapotes</i> , a group of soft edible fruits native to southern Mexico and Central America, because of its sweet caramel flavor and its soft texture. <i>Sapotes</i> are also known in Caribbean English as soap apple. <i>Caimito</i> is usually eaten with lemon, but even alone it is high in vitamin C.	1 piece about 3”/8 cm diameter (200 g)	5.7
Soursop, <i>Guanábana</i> , <sup>10</sup> raw	Large fruit from Central America, especially consumed in Mexico, Brazil, Venezuela, and Colombia. Its peel is green and prickly, with white pulp. Its flavor tastes like a mix of strawberry, banana, and apple with a little acid. Used in beverages, ice cream, or juices.	1 piece about 8”/20 cm (350 g)	5.5
White Kidney Beans, cooked	Known simply as <i>alubias</i> , in Mexico, they are traditionally cooked with tomato, onion, jalapeño chili, coriander, and meat or sausages. Using a meat substitute will still maintain the tastiness of this combination of ingredients.	1 cup (260 g)	5.4

Heart of Palm, cooked	Traditional vegetable from Central and South America. The heart of palm is the inner core of palm trees, such as coconut and peach palm.	1 cup (146 g)	4.6
Breva Figs, <i>Breba</i> , raw	In Colombia, breva figs are eaten as a traditional dessert with <i>arequipe</i> (caramelized milk), cheese, or guava marmalade. Vegan cheese could replace dairy cheese.	5 pieces about 2-3/4"/7 cm long each (200 g)	4.4
<i>Giotilla</i> , raw	Small, green on the outside and red inside, <i>giotilla</i> has several small black seeds. Also called <i>chiotilla</i> , it belongs to the pitaya family and is considered an exotic fruit. Its flavor is sweet and acidic. It comes from a cactus up to 6 meters high. Traditional from Oaxaca, Guerrero, Michoacán, and Puebla in Mexico.	200 g (about 7 ounces)	4.3
Lima Bean, <i>Haba de Lima o Ibes</i> , cooked	Known by many names: <i>frijol ancho</i> , <i>pallar</i> , <i>garrofón</i> , little bean from Cuba, butter bean, or <i>guaracaro</i> . Cultivated from the North of Mexico to the South of Perú.	1 cup (170 g)	4.2
Sesame Seeds, <sup>11</sup> unhulled and roasted	Brought to America from India and Africa, sesame seeds have been incorporated in traditional Latin American dishes such as <i>mole</i> , a traditional Mexican sauce, and <i>palanquetas</i> , bars made with baked sesame seeds and honey.	3 Tbsp. (28 g)	3.9
Cashew Fruit, <i>Marañón</i> , raw	Native to the Northeast of Brazil, Colombia, and Venezuela. The fruit is made up of two parts: the seed (cashew nuts) and the actual fruit. It is eaten in marmalades, jellies, candies, juices, or fresh when mature.	3 pieces about 3"/8 cm each (190 g)	4.1
<b>2-4 mg</b>			
Refried Beans, vegetarian, canned	Black or brown beans cooked and intensely fried. This ingredient accompanies many Latin American dishes.	1 cup (260 g)	3.7
Black Beans, cooked	Black beans constitute an important part of the Mexican diet. There is an infinite variety of traditional dishes made with black beans such as <i>enfrijoladas</i> , <i>bean gorditas</i> , <i>chocos</i> or <i>bean tamales</i> , <i>taquitos</i> , <i>picaditas</i> , beans and fried bananas, corn kernels, zucchini, and black beans, <i>charro</i> beans, bananas filled with black beans, bean filled <i>camelia</i> , and bean soup.	1 cup (172 g)	3.6
<i>Jitomatillo</i> , <i>Miltomate</i> , cooked	Also called <i>miltomate</i> , tomatillo was cultivated by the Aztecs in Mexico. It resembles a tomato, but it is smaller, green and has a dry peel attached. Used to cook sauces and stews in Mexico and Guatemala.	3 pieces about 2"/5 cm diameter each (70 g)	3.6
<i>Cardona</i> Prickly Pear, <i>Tuna Cardona</i> , raw	This variety of prickly pear is completely red inside and out. It is used to prepare an indigenous fermented beverage called <i>colonche</i> .	2 pieces about 3"/8 cm each (250 g)	3.6
Black <i>Sapote</i> Pulp, raw	Native to Mexico, Costa Rica, El Salvador, Belice, Guatemala, Honduras, Nicaragua, Panama, Colombia, and Ecuador. It is dark green on the outside and its pulp is black. This black pulp is mixed with orange juice and is eaten as a dessert. It might look unappetizing because of its black color, but it is delicious!	1 cup (210 g)	3.4
Daledale, cooked <sup>12</sup>	Tuber cooked by indigenous people from America. Traditionally, it is eaten with fish or in salads. You can substitute a vegan fish product.	¾ cup (100 g)	3.1

Amaranth, cooked	Grain similar in flavor to oats. It is used in many traditional Mexican candies, such as <i>alegrías</i> , made with toasted amaranth and honey. You can use a vegan honey product.	1 cup (246 g)	3
<i>Chilaca</i> , raw	Mexican variety of chili characterized by its large 14 to 23 cm length. Usually, it is roasted to prepared filled chilies. Cooked in slices, it is also used to prepare <i>tacos</i> , <i>tamales</i> , or stews. Cooked and ground, it is used in sauces and <i>chileatoles</i> . Dried, it becomes <i>pasilla</i> chili.	3 pieces about 6"/15 cm long each (90 g)	3
Coconut Water, fresh	Known also as <i>pipa</i> water in Costa Rica, Panama, Ecuador, and Peru, it is the liquid inside coconuts. Its flavor can taste a little salty.	1 cup (240 g)	2.9
Cassava, <i>Yuca</i> , <sup>13</sup> cooked	Native to South America, cassava is a major staple food of indigenous people. Its flavor is sweet or bitter. Bitter cassavas have more antinutrients than the sweet ones. Proper cooking is important to reduce antinutrients.	½ piece from a piece of 10"/25 cm (120 g)	2.8
Broad Beans, <i>habas</i> , cooked	Common legume not only in Latin America, but also in Europe. Especially popular in Colombia, Ecuador, Mexico, and Peru. Broad beans are eaten fresh, dried toasted, boiled, roasted, stewed or as soups.	1 cup (170 g)	2.6
<i>Papaloquelite</i> , raw	Herbaceous plant commonly eaten in Mexico and South America, with a taste similar to arugula and cilantro. Used to accompany <i>tacos</i> and <i>cemitas</i> , a big round sandwich, in Mexico. In Bolivia is an ingredient to prepare <i>llajwa</i> sauce.	2 cups (120 g)	2.6
Quinoa, cooked	Pseudocereal originated in the Andean region in South America. Also known as “the gold grain from the Andes”.	1 cup (185 g)	2.7
Chia Seeds, raw	Plant native to Mexico, widely cultivated by the Aztecs. When rinsed, they develop a gel texture. They provide fiber and beneficial fatty acids.	¼ cup (42 g)	2.4
<i>Pitaya</i> , raw	<i>Pitaya</i> , also named dragon fruit, is a cactus fruit native to Mexico. It has a flaky red or yellow peel, and a white soft but firm pulp. It also contains vitamin C.	2 pieces about 4"/10 cm long each (240 g)	2.1
Pigweed, <i>Quelite</i> , cooked	There exist more than 350 species of <i>quelites</i> used in Mexico. Most <i>quelites</i> are high in iron.	1 cup (150 g)	2.1
<i>Xalapeño</i> Chili, <i>Chile Cuaresmeño</i>	Popular worldwide, <i>Xalapeño</i> chili comes from Xalapa city, located in the state of Veracruz, in Mexico. It can be toasted to prepare sauces or cooked to be filled with other ingredients. High in vitamin C.	2 pieces about 3"/8 cm long each	2
<i>Colorín</i> Flower, <i>Gasparito</i> , <i>Flor de Colorín</i> , cooked	Red flower from a tree related to the legume family. Traditionally from Veracruz, Mexico. It is eaten with eggs or onion.	1 cup (80 g)	2

Sources: U.S. Department of Agriculture, Agricultural Research Service. FoodData Central, 2021. [fdc.nal.usda.gov](https://fdc.nal.usda.gov); Reyes García, M., Gómez-Sánchez Prieto, I., & Espinoza Barrientos, C. (2017). Tablas peruanas de composición de alimentos; Pérez, A. B., Palacios, B., Castro, A. L., & Flores, I. (2014). Sistema mexicano de alimentos equivalentes. México: Porrúa Hnos; University of Rochester Medical Center Rochester (2022). Healthy Encyclopedia. <https://www.urmc.rochester.edu/encyclopedia>.

Achieving the recommended amount of iron is easy with a vegetarian or a vegan diet if foods high in iron are part of the diet. On the following tables, you can find a sample of a Latin American menu for women and one for men, with slightly more iron than the recommended 32 and 14 mg, respectively.

### Sample Menu for Women Providing More Than 32 mg of Iron

	Iron (mg)
<b>Breakfast: CEREAL AND MILK</b>	
½ cup cooked amaranth	1.5
¼ cup chia seeds	1.2
⅓ <i>mamey</i>	2
1 cup calcium-fortified soymilk	

Soak chia seeds overnight with a bit of water. Chop the *mamey* in small pieces. Mix all the ingredients in a bowl with soymilk. Enjoy!

<b>Snack: GUANABANA ICE</b>	
½ small <i>guanabana</i>	2.5
1 cup calcium-fortified soymilk	
¼ cup chia seeds	1.2

Blend all the ingredients, then pour mixture into popsicle molds and freeze. Delicious snack!

<b>Lunch: CHICKPEAS WITH CARROTS, CRUCETAS, AND QUINOA</b>	
1 cup cooked chickpeas	6.8
½ cup chopped carrots	
3 pieces cooked <i>crucetas</i>	6.8
1 cup cooked quinoa	2.7
¼ avocado	

Gently fry 1 teaspoon chopped onion and 1 garlic clove for 5-6 minutes. Add cooked quinoa and stir. Set aside. Fry ¼ sliced onion and 1 chopped xalapeño pepper without seeds for 5 minutes. Add the cooked chickpeas with their liquid, the carrots, a teaspoon vinegar, 2 bay leaves, and salt to taste. Cook until carrots are soft and serve in a bowl. Place the quinoa, *crucetas*, and ¼ avocado in another dish. Optional: you can add half a lemon for dressing.

<b>Snack: BLACK SAPOTE AND ORANGE JUICE</b>	
½ cup black <i>sapote</i> pulp	1.7
¼ cup orange juice	

Mix the black *sapote* pulp with the orange juice. Optional: add ½ teaspoon brandy

<b>Dinner: ENFRIJOLADAS FILLED WITH TOFU</b>	
2 servings tofu processed with calcium sulfate (6 ounces)	3.6
½ cup cooked black beans	1.8
2 corn tortillas	
¼ avocado	
2 Cardona prickly pears	3.6

Marinate sliced tofu in garlic powder, black pepper, and soy sauce, for half an hour. Crumble the tofu and cook until it gets drier. Set aside. Mash black beans and fry them with ½ teaspoon oil until they get slightly dry and creamy. Heat tortillas until they get slightly crispy, about 1 minute per side. Dip tortillas in beans so they get completely covered. Place beans-covered tortillas folded in half in a dish, spoon the remaining beans on the top, and top with tofu. Garnish with sliced avocado, a bit of sliced onions, and 2 Tablespoons of chopped coriander. Optional: add crumbled vegan cheese. Eat Cardona prickly pears as dessert.

<b>TOTAL</b>	<b>35</b>
2000 kcal, 80 g of protein (16% of total energy), 290 g of carbohydrates (58%), 63 g of fat (29%), 1100 mg of calcium, and 35 mg of iron.	

## Sample Menu for Men Providing More Than 14 mg of Iron

	Iron (mg)
<b>Breakfast: VEGAN QUESADILLAS, MASHED BEANS, AND BANANA MILKSHAKE</b>	
2/3 cup mashed cooked beans	3
2 servings tofu processed with calcium sulfate (6 Ounces)	3.6
2 corn tortillas	
1 cup calcium-fortified soymilk	
1 banana	0.3

Marinate sliced tofu in garlic, pepper, and curry powder, a few drops of balsamic vinegar, and salt, for half an hour. Cook it in oil spray until it gets a little bit crispy. Heat tortillas 1 minute on each side, fold them in two, and fill them with tofu slices. Warm another 2 minutes. Place them in a dish and garnish with mashed cooked beans.

Accompany with a banana milkshake (blend the banana and the soymilk).

### Snack: SOYMILK, MANGO AND CHILI, AND SALTED SQUASH SEEDS

1 cup calcium-fortified soymilk	
1 cup chopped mango with chili powder	0.2
2 teaspoons salted and toasted squash seeds	

### Lunch: BROAD BEANS, CACTUS SALAD, AND GRAPEFRUIT

1/2 cup cooked strained cactus	
1 cup cooked broad beans	2.6
2 corn tortillas	
1/2 avocado	
1 grapefruit	

Finely chop 1/4 onion, 2 tomatoes, 1/2 bunch coriander, and 1/2 cup cooked cactus. Mix together. Top with sliced avocado. Optional: add crumbled vegan cheese. Set aside in a dish. Fry 1 chopped garlic clove, 1/4 onion, and 1 tomato with 1 teaspoon oil for 3 minutes. Add cooked broad beans and stir. Place the broad beans mixture in a bowl and top with 2 Tablespoons chopped fresh coriander. Eat grapefruit as dessert.

### Snack: ORANGE JUICE AND CHIA SEEDS

1 cup orange juice	
1/4 cup chia seeds	2.4

Cover chia seeds with water and soak them overnight. Add chia seeds to orange juice and stir well. Optional: place the glass in the refrigerator and let the chia seeds set and the mixture thicken a bit for 20 minutes.

### Dinner: ENFRIJOLADAS, AND TANGERINE

2 tangerines	
1 cup cooked black beans	3.6
1/2 avocado	
2 tortillas	

Mash black beans and fry them with 1/2 teaspoon oil until they get slightly dry and creamy. Heat tortillas for about 1 minute per side until they get slightly crispy. Dip tortillas in beans so they get completely covered. Place bean-covered tortillas folded in half in a dish and fill them with the remaining beans. Top with sliced avocado, a bit of sliced onions, 2 Tablespoons of chopped fresh coriander. Optional: add crumbles of vegan cheese. Eat tangerines as dessert.

**TOTAL** **16**  
 2300 kcal, 101 g of protein (17% of total energy), 330 g of carbohydrates (58%), 77 g of fat (30%), 1100 mg of calcium, and 16 mg of iron.

## Examples of Latin American Vegan Dishes High in Iron

The U.S. RDA suggests that vegetarian/vegan women after menopause and men should consume approximately 14 mg of iron daily, and vegetarian/vegan premenopausal women 32 mg.

Food	Description	Portion	Iron (mg)
<a href="#">Taco Salad</a>	Veganized recipe with a traditional Mexican taste. Made of soy crumbles, kidney beans, tortilla chips, green and red bell pepper, tomatoes, chili powder, and lettuce.	1 cup	5
<a href="#">El Rico</a>	Hearty soup from Mexico that contains red kidney beans, tomato paste, green bell pepper, carrots, peanuts, and cilantro.	1 cup	4
<a href="#">Yucca and Avocado Stew</a>	Stew from Mexico made with yucca, black beans, avocado, corn tortilla chips, cilantro, green bell pepper, tomato, and carrots.	1 cup	4
<a href="#">Cold Quinoa Salad</a>	Fresh salad that combines quinoa with black beans, corn, red and green bell peppers, mustard, and coriander. Quinoa was first used by Chilean and Peruvian people. Now, its nutritional qualities and great flavor make it possible to find it in almost any supermarket.	1 cup	3
<a href="#">Chickpea Casserole, Puchero de Garbanzos</a>	Dish from the Colombian Andes made with onion, garlic, tomatoes, cumin, oregano, and coriander. It is usually served with rice.	1 cup	3
<a href="#">Grilled Chilies Rellenos</a>	Traditional Mexican dish especially eaten the September 16th when Mexicans celebrate their Independence Day. Poblano chili peppers, a large chili, is filled usually with meat and spices. This recipe offers a vegan version made with pinto beans, red bell pepper, and vegan cheese.	1 filled chili pepper	2

Commonly used Latin American ingredients and recipes are a delicious way to help you achieve your iron needs. In addition, recovering Latin American forgotten nutritious ingredients, could not only help us to better take care of our health, but it could also permit us to protect the varied genetic pool of plant foods that represents a powerful tool to face the irregular climate conditions brought on by climate change.

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