



QUINOA

QUINOA — Arroz de Peru

History: Quinoa, Arroz de Peru (Spanish for rice of Peru) or Trigo Inca is related to the old English salad herbs, fat hen and good King Henry (*chenopodium*), although grows up to 8 feet. It has been grown since Inca times, in Central-South Americas (typically Equador, Columbia, Peru, Bolivia, Gandarillas) where 17 types are found from 2,000 - 4,000m altitude in poor alkaline soils with a dry climate. Some Types: Altoplano, sea level, valley. Predictably Nitrogen based fertiliser increases protein yield of grain.

Nutrition: Quality protein: unlike any other grain has full range of amino acids, easily absorbed by body) comprises 7.5-22.1%. **Fats:** 7 to nearly 9% oil content. Rich in omega 3 and 6 essential and omega 9 fatty acids. 31% oleic (omega 9), 45% linoleic (omega 6), 2.7% linolenic (omega 3)- remainder 16,20 and 22 fatty acids. **Fibre:** 3.4%. **Carbohydrate Content:** 60.1%. **Minerals:** Higher than most standard grains. Magnesium, calcium, phosphorus and iron. **Vitamins:** Vitamin B1 (higher than chicken livers!), vitamin B2, vitamin C and vitamin E (up to 740ppm alpha and 930ppm gamma tocopherols — protect oil content before processing).

Preparation: The grain contains bitter saponins (soap forming substances, up to 6.3mg per gram) in its pericarp or outer layer, which should be washed off the grains to avoid indigestion or bloating and sometimes intestinal permeability. They are usually washed off before despatch by industrial alkaline water washing or mechanical abrasion. To find if your quinoa needs additional washing — place it in bowl of water and stir around — if foaming or froth occurs — rinse thoroughly as you would lentils or rice, until lather from grains ceases.

Credit Reference: Johnson, D.L. and Ward Sarah. M. Quinoa and Koziol, M.J. (1993) Quinoa: A potential New Oil Crop in Janick and Simon (eds), New Crops, Wiley, New York

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RECIPES

Quinoa, Red Lentil Pilaf with Kale and Olives

Ingredients: 1 medium onion, finely diced, 2 tbsp, olive oil, 2 cloves garlic (minced), 1 tsp cumin seeds, 1 tsp yellow mustard seeds, 1 tsp ground coriander, 1 cup quinoa, ½ cups red lentils (sorted + rinsed), 2 cups vegetable stock, 3 cups chopped fresh kale, ½ tsp salt and for decoration: ¼ cup chopped pitted olives.

Method: Saute onion in oil for 5 mins. Add garlic, cumin, mustard and coriander for a further 1 or 2 mins. Add quinoa + lentils and sauté for 3 mins. Add stock, kale and salt and simmer for 25 mins. Turn off and leave to stand for 15 mins. Decorate with olives before serving. Recipe Credit: Mindy Toomay (Californian Cookery Writer) in Veggie Life Spring 2001 (US magazine)

Quinoa and Cashew Risotto

Ingredients: 4 tbsp olive oil, 2 leeks (finely sliced), 2 sticks celery (finely chopped), 8 tbsp quinoa, 600ml water, 375g water chestnuts, 100g cashew nuts + 2 tbsp sunflower seeds (roasted), juice of 1 or 2 lemons, sea salt and ground black pepper, 2 handfuls fresh mint (chopped small).

Method: Cook celery and leeks in oil until soft. Add quinoa + water, boil, then cook gently for 15 mins until water absorbed. Add ½ water chestnuts (from tin), roasted nuts + seeds, lemon juice, salt and pepper. Stir in mint just before serving.

Beetroots and Quinoa with Red Cabbage

Ingredients: 400-500g beetroot with leaves + stalks, 2 tbsp olive oil, 2 cloves garlic, 1 leeks (finely sliced), 150g quinoa, 200g red cabbage, finely chopped, 500ml water, 50g pistachio nuts, 75g toasted cashew nuts, sea salt and ground black pepper.

Method: Remove stalks and leaves from the beetroots. Wash the beetroots. Wash leaves, tear and set aside. Wash the stalks then chop roughly. Steam beetroot, then halve. Cook garlic, leek in olive oil for a few mins. Add quinoa, water and red cabbage and simmer. Add all beetroot parts and simmer for 15-20 mins, until all water absorbed by quinoa. Add nuts last + season to taste. Recipe Credit: Adam and Eve Diet, Publ. 2002).

Shourabat Adas (Wheat Free)

Ingredients: ½ cup (110g) red lentils, 1 tin organic chickpeas (or cook up from dry), ½ cup quinoa (rinsed), 1 tomato (chopped), 1 stick celery (finely sliced), 1 carrot (thinly sliced), 1 onion (chopped), 1 clove garlic (chopped), 1 tsp ground cumin, 1 tsp ground coriander, 600ml kallo vegetable stock, 2 tbsp parsley (chopped), olive oil, salt and pepper.

Method: Soak lentils in boiling water for 10 minutes, then drain. Cook onions in oils for 10 minutes (use steam fry if required), then add garlic, cumin, coriander + ½ parsley + cook for 2 minutes. Add tomato, celery + carrot and cook for further 5 minutes. Put in drained lentils and quinoa. Add Stock and simmer for 10 minutes. Add chickpeas and season. Mix well and cook for further 10-15 minutes. Garnish with remaining

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parsley once served. Recipe Credit: Middle Eastern, adapted from Vegetarian Quick + Easy, Publ New Internationalist, 2001.

Starry Quinoa Pilaf

Ingredients: 900ml water(3 ¾ cups), 350g quinoa, 5 tbsp olive oil, 450g okra* (bhindi or lady's fingers, topped and tailed, sliced thinly), 4 tomatoes (peeled + chopped), 1 cup (225g) frozen peas, 1 medium onion (finely chopped), 3 garlic cloves (thinly sliced), 2 tsp cumin seeds, 1 tsp black pepper. Optional: decorate with chopped coriander leaves. Flavour with Tamari (wheat-free Soya sauce).

Method: Bring Water to boil and add quinoa, return to boil, cover and simmer 15 minutes. Tip into colander. Fry or steamfry okra in oil for 2/3 mins, highish heat (gets gluey with pectin). Add tomatoes and cook for 2 mins. Add rest ingredients, toss, stir and cook for 5 mins. Lower heat, cover and cook for another 8 mins. Uncover + reduce liquid left, if required at high heat. Add in quinoa and mix through. Serve. Recipe Credit: Jane Sen (BCHC Cook) Healing Foods, Publ Thorsons, London (2000) ISBN 0 00 710816 8

* Obtain okra form Asian food store, e.g. Lahore Store (Leith Walk, Edinburgh) or occasionally large Sainsbury's (expensive in supermarkets!).

Hot Quinoa Breakfast Cereal

Ingredients: 250g quinoa, 1 apple (finely chopped), 25g raisins or any chopped dried fruit, ½ tsp cinnamon, 1 tsp vanilla essence, 1 tbsp sweetener honey, brown rice syrup or candida friendly fos powder (ask your nutritionist), Soya milk.

Method: Rinse quinoa well, simmer in 2x its volume of water for 5 mins. Add apple, cinnamon raisins and continue to simmer until water absorbed. Stir in vanilla essence and sweeteners as required. Add milk again to desired taste.

Quinoa with Beans and Cumin

Ingredients: 1 cup (225g), mung beans (cooked for 35 mins), 1½ Cups (250g) quinoa (cooked in 2x volume water with 2 tsp bouillon powder. Bring to boil, simmer for 15 mins, until all water absorbed, set aside), 1 tbsp cumin seeds, 2 bay leaves, 4 tbsp olive oil, 2 onions (finely chopped), 1 tsp ground cumin, 1 tsp paprika, 1 tsp ground black pepper, 1 tbsp tamari (wheat-free) Soya sauce, juice of 1 lemon, 225g (1 cup) cooked broad beans OR use frozen, if not in season, mung beans (cooked for 35 mins, boil then simmer, drain + set aside).

Roast seeds and bay for 2 mins at high heat in oil and add onion, lower heat + simmer for 5 mins. Add next batch of spices and sizzle for 2 mins. Stir broad beans into mixture, then cooked quinoa, then cooked mung beans. Heat through and serve. Recipe Credit: More Healing Foods by Jane Sen (BCHC Cook) Publ. Thorsons, 2001.

Tunisian Style Onions and Quinoa

Ingredients: 450g quinoa (2 cups), 6 tbsp olive oil, 4 onions, 4 cloves garlic (thinly sliced), 1 tsp coriander seed whole, 2.5 tbsp tomato puree or tomato, 4 tbsp raisins or currants, ½ tsp black pepper,

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Method: Add 2 cups quinoa to double volume of boiling water. Reduce heat, simmer for 15 mins covered. Cook garlic, coriander and onion in oil. Stir tomato, currant and pepper into it. Mix quinoa with vegetables and serve. Recipe Credit: Jane Sen (BCHC Cook) More Healing Foods, pp104.

Quinoa, French Lentil and Green Pilaf

Ingredients: 2 medium leeks (trimmed and diced), 1 tsp dried rosemary (crushed), 2 tbsp olive oil, $\frac{3}{4}$ cup quinoa, $\frac{1}{2}$ cup green or French lentils (sorted and rinsed), $\frac{3}{4}$ cup brown basmati rice, 2 tsp juniper berries crushed (optional), 4 cups vegetable stock, salt and pepper to taste.

Method: Gently sauté (medium heat) leeks and rosemary in oil for approx. 3 mins. Add quinoa, lentils, rice and juniper berries and sauté for 2 minutes more. Stir in stock, salt and pepper. Cover and reduce heat to low and cook for 45 mins. Turn off and leave to stand for 15 mins. Then toss lightly before serving. Recipe Credit: Mindy Toomay (Californian Cookery Writer) in Veggie Life Spring 2001 (US magazine)

Tofu, Green Bean and Quinoa Salad

Ingredients: 50g quinoa, 200g fine green beans (trimmed and finely chopped), 4 tbsp olive oil, 2 leeks (chopped finely), 1 clove garlic (crushed), 200g marinated tofu, 2 tomatoes (chopped), 2 tbsp chives (chopped), 1 tbsp parsley (chopped).

Method: Wash quinoa well to remove saponins and simmer in twice as much water for 12-15 minutes, until liquid absorbed and grain soft. Steam green beans for 10 minutes. Sauté or steam fry leeks, garlic and tofu in olive oil. Stirring until leeks cooked. Combine 3 saucepan ingredients. Add Tomatoes, herbs, mix and serve. Recipe Credit: Optimum Nutrition Magazine.

Sweet Pea Soup with Quinoa

Ingredients: $\frac{1}{2}$ cup quinoa (rinsed + drained), 2 tsp vegetable oil (e.g. grape seed), 1 medium onion (chopped), 3 cups vegetable stock, 4 cups shelled fresh (4lbs unshelled!) frozen peas, 150g plain Soya yoghurt, $\frac{1}{2}$ tsp salt, $\frac{1}{2}$ tsp white pepper, 2 tbsp shredded mint leaves (optional).

Method: Combine quinoa with 1 cup water and bring to boil over medium, then reduce to low heat and cook for 15 mins, until water absorbed. Fluff with fork. Soften onions in oil for 4-5 mins, separate pan. Add stock, cover and bring to boil. Add peas and reduce to medium heat for 5 mins. until tender. Remove and reserve $\frac{1}{2}$ cup peas. Mix 2 mixtures using blender) and blend remainder. Stir in cooked quinoa, reserved peas, yoghurt, salt + pepper. Reheat over low and serve. Recipe Credit: Vegetarian Times, August 2001 (US magazine)

Mediterranean Quinoa Salad

Ingredients: 200g quinoa, organic stock cube (e.g. kallo yeast free), 200g quartered mushrooms, 2 courgettes, 3 sliced bell peppers in 3 colours, 1 large red onion (sliced), 4 cloves garlic (crushed), small packet pine nuts, 1 tbsp chopped basil, 6 sliced sun-dried tomatoes, $\frac{1}{2}$ can tomato juice or V8, olive oil, salt and pepper, squeeze of lemon juice.

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Method: Cook quinoa in Boiling Water, with stock cube for 10-15 minutes drain and leave to cool. Slowly fry onion, garlic and peppers until cooked. Add Mushrooms + Courgettes + cook briefly (keep firm), then remove from heat. Mix vegetables with quinoa and stir in V8, sliced sun-dried tomatoes, basil, pine nuts and season with lemon juice and salt and pepper. Recipe Credit: The Nutritional Practitioner Feb 1999 Issue 1.1

Quinoa Stew (45mins, serves 4 hot vegetarian vegan main course, Peru, South American)

Ingredients: 75g (3oz) quinoa, 240ml (8fl.oz.) water, 2 tbsp vegetable oil, 1 large onion (chopped), 2 garlic cloves (crushed), 1 stick celery (chopped), 1 carrot (sliced), 1 capsicum (sweet pepper, cut into 1 inch pieces), 2 courgettes (diced), 1 x 400g (14oz) tin chopped tomatoes, 240ml (8fl.oz.) vegetable stock, 2 teasp ground cumin, 1/2 teasp chili powder, 1 teasp ground coriander, A pinch of cayenne pepper, 1 teasp dried oregano, salt.

Method: Wash the quinoa well, place in medium saucepan with water, bring to the boil, reduce the heat, cover and simmer for 15 minutes (set aside). Meanwhile, heat oil in large saucepan, add onions, garlic and sauté over medium heat for 5 mins, stirring constantly. Add celery and carrots, mix well, continue cooking further 5 mins, stirring frequently. Add the capsicum, courgettes, tomatoes, stock, cumin, chilli powder, coriander, cayenne, and oregano, mix well then cover and simmer for 10-15 minutes or until vegetables are tender. Stir the cooked quinoa into vegetables, adjust the seasoning and serve immediately.

Quinoa Vegetable Soup 25mins

(Serves 4 hot vegetarian vegan soup Peru, South American dairy wheat gluten free and eggless).

Ingredients: 1 tbsp vegetable oil, 50g/2oz quinoa, 1 carrot (diced), 1 stick celery (diced), 2 tbsp finely chopped onions, 1/2 green capsicum (sweet pepper) diced, 2 garlic cloves (crushed), 960ml (32fl.oz.) water, 2 large tomatoes (finely chopped), 50g (2oz) green cabbage (chopped), salt and pepper, freshly chopped parsley to garnish.

Method: Heat oil in large saucepan, add quinoa, carrot, celery, onion, pepper, garlic and fry, stirring, until browned. Add water, cabbage and tomatoes, mix well and bring to boil. Reduce heat + simmer 10 minutes. Season with salt + pepper + garnish parsley. Serve hot.

Baked Quinoa with Potatoes

(75 mins, serves 4-6 hot vegetarian vegetable accompaniment Peru, South American).

Ingredients: 2 tbsp olive oil, 2 leeks (white part only, cut into rings), 2 garlic cloves (finely chopped), 1 green capsicum (sweet pepper, diced), 1 red capsicum (sweet pepper, diced), 4 eggs, 180ml (6fl.oz.) semi skimmed milk, 225g (8oz) cooked quinoa, 150g (5oz) smoked cheddar cheese (grated), 450g (1lb) potatoes (unpeeled and diced), salt and pepper to taste, 2 teasp fresh thyme leaves.

Method: Preheat the oven to 180C, 350F, Gas Mark 4 and oil a large gratin dish. Heat olive oil in large frying pan, add leeks and sauté for 5 minutes, stirring, until tender. Add the garlic and continue to cook for 1 minute then add peppers, mix well, cover and cook for further 5 mins, stirring from time to time, until peppers just tender. Meanwhile, place eggs and milk in large mixing bowl + beat well. Add cooked quinoa, cheese, potatoes, cooked pepper mixture, salt, pepper + thyme and mix well. Pour the mixture into the prepared gratin dish and bake for 40 to 45 minutes, until the top is golden brown. Serve hot.

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Quinoa en Salpicon (35 mins plus cooling, serves 4-6 cold vegetarian salad accompaniment, Peru, South American, gluten wheat dairy free, eggless vegan)

Ingredients: 60ml (2fl.oz.) fresh lime juice, 180ml (4fl.oz.) olive oil, salt and ground white pepper, 1 fresh jalapeno chili (deseeded and finely chopped), 200g (7oz) quinoa, 600ml (20fl.oz.) water, 150g (5oz) cucumber (peeled and diced), 225g (8oz) fresh tomatoes (diced), 1 tbsp freshly chopped parsley, 1 tbsp freshly chopped mint.

Method: In a small bowl, whisk together lime juice, olive oil white pepper, jalapeno and salt. Set aside. Wash quinoa well under running water then place in large saucepan together with water, bring to boil, reduce the heat, cover + simmer 15 mins. Remove pan from heat and allow to cool. Place cooled quinoa in serving bowl with cucumber, tomato, scallions, parsley and mint, mix well. Add vinaigrette, toss well and adjust seasoning if necessary. Serve cold.