

## The most versatile oil in your kitchen!

## **Developed with the CSIRO using Australian Safflower.**



Plenty Safflower oil is the first food product to be made using super high oleic (SHO) safflower seeds, developed by the CSIRO and Grains Research and Development Corporation (GRDC). CSIRO plant scientists spent 12 years developing the SHO safflowers to create a highly stable oil and an environmentally sustainable crop for Australian farmers.

To create the SHO safflowers, the CSIRO scientists used gene-silencing technology to switch off the enzymes in safflower seeds that turns oleic acid into polyunsaturated fatty acids. As a result,

oil made from the SHO safflowers contains 92% oleic acid, compared to 75% for regular safflower oil, and has significantly less saturated fat.



# Heart Smart Safflower Oil is 100% Australian owned, grown & made



#### Safflower

(Carthamus tinctorius) was first cultivated in Mesopotamia, over 4000 years ago and is a hardy crop for Australian conditions.

With the introduction of safflower oil to the market many rural Australian farmers will be entrusted to grow the safflower plants. This will provide a reliable income for many local farmers across Australia.

#### SUSTAINABLE SUPPLY

Due to the safflower plants hardiness, it is relatively easy to grow and resistant to most climates Australia has to offer, from harsh to temperate.

This allows for continuous supply of oil year-round, potentially avoiding growing problems and shortages found in some other plants and avoiding the need to resort to overseas imports.

| 15ml<br>serve       | Plenty<br>Safflower Oil | Rice Bran<br>Oil | Olive<br>Oil* | Canola<br>Oil |
|---------------------|-------------------------|------------------|---------------|---------------|
| Energy              | 510kJ                   | 511kJ            | 510kJ         | 511kJ         |
| Protein             | Og                      | Og               | Og            | Og            |
| Fat - Total         | 13.8g                   | 13.8g            | 13.8g         | 13.8g         |
| - Monosaturated     | 12.8g                   | 5.48g            | 9.69g         | 8.19g         |
| - Polyunsaturated   | 0.29g                   | 4.53g            | 1.26g         | 3.93g         |
| - Saturated         | 0.75g                   | 3.17g            | 2.14g         | 1.01g         |
| Total Carbohydrates | Og                      | Og               | Og            | Og            |
| - Sugars            | Og                      | Og               | Og            | Og            |
| Sodium              | Omg                     | Omg              | Omg           | Omg           |

Source: Food Standards Australia New Zealand (2022). Australian Food Composition Database - Release 2. Canberra: FSANZ. Available at www.foodstandards.gov.au

### More on gene silencing

Thirty years ago, CSIRO scientists discovered a natural gene silencing mechanism in plants that had evolved as a defence against viruses. The plant changed the instructions from a gene, effectively turning off the gene or silencing it. CSIRO has adapted this natural process and uses molecules to target and change instructions from a specific gene. The gene silencing technology has been used to develop potatoes that

don't bruise, alfalfa plants that are easier for cattle to digest and wheat varieties with better yields. It was also the technology used to create SHO safflowers.







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#### **IN SUMMARY**

## 6 good reasons to make the switch

Plenty Safflower Oil is a home-grown cooking innovation with superior cooking qualities and health credentials. It is the first food product to be made from super high oleic (SHO) safflower seeds, developed by CSIRO, Australia's national science agency, and Grains Research and Development Corporation, specifically for Australian farmers.



#### **HEART-HEALTHY BLEND**

Plenty Safflower Oil is 92% oleic acid (omega 9) and therefore full of healthy monounsaturated fats (12.8g per 15ml serve) recommended for cardiometabolic health.

Because of its highly unsaturated fatty acid profile, SHO safflower oil can help maintain good cholesterol levels and heart health, when enjoyed as part of a heart-healthy diet. Plenty Safflower Oil has a 4.5 Health Star Rating.



#### HIGH SMOKE POINT

The unique qualities of Plenty Safflower oil keep it stable at very high temperatures. It has a high smoke point of 266°C² and is a healthy choice for frying, roasting, barbecuing, baking and everyday cooking, without the risk of oxidative damage and the creation of potentially harmful compounds, such as free fatty acids and aldehydes. The high smoke point also helps to keep your kitchen clean and smoke free.



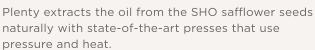
#### **VERSATILE ALL-ROUNDER**

Plenty Safflower Oil has a mild, neutral flavour and is extremely versatile. The neutral flavour and gentle mouth feel let the ingredients shine, including delicate flavours like seafood and soft herbs, and spicy dishes such as curries and stir frys. As well as remaining stable at high temperatures, Plenty Safflower Oil doesn't become cloudy or solidify when refrigerated, making it ideal for home-made salad dressings.

#### Reference:

- 1. Clifton P and Keogh J. Dietary fats and cardiovascular disease: an Evidence Check rapid review brokered by the Sax Institute for the National Heart Foundation of Australia, 2017.
- 2. Laboratory analysis, March 2022

#### NATURAL EXTRACTION



- Presses squeeze the oil from the SHO safflower seeds.
- The oil is warmed and natural clay is used to absorb impurities.
- Following high pressure filtration, the warm oil is held in a vacuum and steam is applied to remove odours and any remaining impurities.
- The oil is then cooled and filtered to create natural cooking oil with a mild flavour.

The process is chemical-free and produces no waste by-products. Even the 'cake' of leftover seed husks is used to feed livestock.

As a result of the natural extraction, the colour of Plenty Safflower Oil may vary slightly, as oil colour can change from crop to crop.

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#### 100% AUSTRALIAN

Plenty Safflower Oil provides a healthier cooking oil for everyday use and an Australian alternative to imported rice bran oil. Plenty Safflower Oil is made in Queensland by Australian-owned Plenty Foods and uses 100 percent, Australian-grown SHO safflowers. The sustainable and drought-hardy plant is an ideal rotational crop that improves the quality of compacted soils. The SHO safflowers are now grown in Queensland, New South Wales, Victoria, South Australia, and Western Australia.

#### A SUSTAINABLE CROP

As mentioned on the previous page, Safflower is a hardy crop that needs little water and due to its long tap root can also be used as a break crop to soften hardened soil.



## Tahini & Coconut Baked Cauliflower with Walnut Oil and Almond Gremolata



PREP TIME: 20 minutes COOK TIME: 30 minutes SERVES: 6

#### **INGREDIENTS**

#### Cauliflower

1 whole cauliflower, washed and trimmed at the base (not too much trimming or it won't hold together)

2 tbsp Plenty Safflower Oil

1 cup light coconut cream

2 tbsp tahini paste

1 tbsp cumin

5 thyme stalks, leaves only

 $1^{1/2}$  tbsp soy sauce

Salt & pepper to taste

2 limes, cut into wedges for garnish and finishing

#### Gremolata

20g parsley leaves, finely sliced 2 garlic cloves, finely chopped 4 tbsp Plenty Walnut Oil 1/4 cup toasted flaked almonds 1 small lemon, juice and zest Season to taste

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#### **METHOD**

- **1.** Preheat the oven to 180°C. Add the trimmed cauliflower to a large pot with a lid. Make sure the pot is big enough to take the whole cauliflower, then add about 3–5 cm of water, cover and steam for around 12 minutes, or until the structure of the vegetable is starting to soften.
- **2.** While it's steaming, mix together Plenty Safflower Oil, light coconut cream, tahini paste, cumin, thyme leaves and soy sauce in a large mixing bowl. Whisk well and taste for seasoning.
- **3.** Place par-cooked cauliflower, whole, into a lined, large baking dish upside down. Cover with half of the creamy sauce mix, letting it drip through all of the stems. Tip the cauliflower up the right way around and repeat with the rest of the creamy sauce over the top of the vegetable.
- **4.** Bake at 180°C for 20–30 minutes or until golden and cooked to al dente (still a little firm to cut). Baste with pan juices every ten minutes.
- **5.** While the cauliflower is baking, mix the gremolata ingredients and set aside.
- **6.** Serve cauliflower whole, drizzled in pan juices and topped with gremolata. Garnish with lime wedges, squeeze over to serve.

For more recipes go to: https://www.plentyfoods.com.au/recipe-listing/safflower-oil/



### **Know Your Smoke Points**

#### WHEN OIL STARTS TO BURN AND SMOKE

The smoke point of an oil helps to define how an oil should be used and helps to make healthier choices for high temperature cooking.

The point at which an oil starts to smoke is when fats, proteins, sugars and any other organic material in the oil starts to burn. It can smoke up the kitchen, make food taste bad and is a sign of nutritional breakdown, specifically oxidative damage and the creation of potentially harmful compounds, such as free fatty acids and aldehydes.

The unique qualities of Plenty Safflower Oil ensure it is stable at very high temperatures with a smoke point of 266°C, the highest of all common cooking oils. This makes it a healthy choice for frying, roasting, barbecuing, baking and everyday cooking.

#### SMOKE POINT COMPARISON CHART

| Type of commonly available<br>cooking oil | Smoke<br>Point     |
|---|--------------------|
| Plenty Safflower Oil (super high oleic)   | 266°C¹             |
| Sunflower oil                             | 253°C²             |
| Rice bran oil                             | 232°C³             |
| Canola oil                                | 225°C²             |
| Peanut oil                                | 229°C²             |
| Olive oil (refined)                       | 208°C <sup>4</sup> |
| Extra virgin olive oil                    | 206°C <sup>4</sup> |
| Coconut oil                               | 191°C <sup>4</sup> |

NOTE: smoke points can vary with oil quality and physiochemical properties.

- 1. Laboratory analysis, March 2022
- 2. Y.H. Hui (ed) (2005). Bailey's Industrial oil and fat products (fifth edition, Volume 2), edible oil and fat products, oils and oil seeds. Wiley
- 3. Gunstone, Frank D (ed). (2011). Vegetable oils in food technology: composition, properties and uses. Blackwell Publishing
- 4. Guillaume C., et al. Evaluation of Chemical and Physical Changes in Different Commercial Oils during Heating. Acta Scientific Nutritional Health 2.6 (2018): 02-11



Plenty Safflower Oil has a high smoke point of 266°C

#### How hot?

For pan frying, oil is generally heated between 160-240°C, with an optimal temperature of around 180°C. For stir-frying in a wok, oil is generally heated up to 260°C.

