

Salsify

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Scientific Name and Introduction

Salsify (*Tragopogon porrifolius* var. *sativus* [Gaterau] Br.-Bl.) belongs to the Compositae family. It is also called vegetable oyster and oyster plant. It is a biennial that produces an edible taproot. The root is light yellow outside and white inside and 15 to 30 cm (6 to 12 in) long with a diameter of 2 to 2.5 cm (0.75 to 1 in). Black salsify (*Scorzonera hispanica* L.) belongs to the same family. Its taproot is larger, more cylindrical in shape, brown-black on the outside, and white inside. Both are rich in iron, vitamins (B1, B2, and E) and inulin, asparagin, and the glycoside larinin. Inulin is poorly digested by humans and can be used as a bulking ingredient in foods formulated with artificial sweeteners (see “Jerusalem Artichoke” chapter) and as a source of fructose (Kierstan 1978).

Quality Characteristics and Criteria

There are no U.S. or international standards. The many recommendations are not mandatory. Taproots must be sound, clean, fresh, and without any foreign smell or taste. They must be full-bodied, straight, and unbranched. They should not be woody. Color must be uniform light-yellow or brown-black.

Horticultural Maturity Indices

Harvest is based on root size and time from seeding—usually after 150 to 210 days.

Grades, Sizes, and Packaging

No official grades exist; sizing is based on length and diameter. Salsify is packaged in plastic liners or trays wrapped with plastic film to minimize water loss.

Precooling conditions

Precooling is not necessary.

Optimum Storage Conditions

Under refrigerated conditions, salsify roots can be stored for 3 to 4 mo at 0 °C (32 °F) with 95 to 98% RH (Hardenburg et al. 1986). In the absence of refrigeration, roots are also commonly stored in clamps (Hak 1993).

Controlled Atmosphere (CA) Considerations

Black salsify can be stored in 3% CO₂ and 3% O₂ for 6 mo at 0 °C (32 °F) with excellent results

(Stoll 1974).

Retail Outlet Display Considerations

The skin is very delicate, and salsify easily loses water if not in plastic-lined trays. Misting with water is beneficial.

Chilling Sensitivity

Salsify is not chilling sensitive. It should be stored as cold as possible without freezing.

Ethylene Production and Sensitivity

Salsify produces very little ethylene and has low sensitivity to ethylene.

Respiration Rates

Temperature	mg CO ₂ kg ⁻¹ h ⁻¹
0 °C	22 to 28
5 °C	33 to 53
10 °C	40 to 57
20 °C	193

To get mL CO₂ kg⁻¹ h⁻¹, divide the mg kg⁻¹ h⁻¹ rate by 2.0 at 0 °C (32 °F), 1.9 at 10 °C (50 °F), and 1.8 at 20 °C (68 °F). To calculate heat production, multiply mg kg⁻¹ h⁻¹ by 220 to get BTU ton⁻¹ day⁻¹ or by 61 to get kcal tonne⁻¹ day⁻¹.

Physiological Disorders

Freezing is a risk during storage.

Postharvest Pathology

The most frequent diseases in the field are *Albugo tragopogonis*, causing russet spotting on leaves, and powdery mildew (*Erysiphe cichoriacearum* DC.), which compromises quality.

Quarantine Issues

There are no known quarantine issues.

Suitability as Fresh-Cut Product

Salsify is not currently marketed as fresh-cut product.

References

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