

Information about the Kentucky State University Cooperative Extension Program



## Watercress: A Small Leaf with Great Power *(Nasturtium officinale)*

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### Overview & Significance

- Watercress (*Nasturtium officinale*) is a fast-growing aquatic leafy green valued for its peppery flavor, crisp texture.
- Exceptional nutritional benefits- vague, rich in vitamins, antioxidants, making it increasingly important in modern agriculture.
- Watercress, a member of the Brassicaceae family, has historical roots in ancient Greek and Roman civilizations, valued for its nutritional and medicinal properties.
- Originally growing in natural waterways, watercress now thrives in hydroponic systems, greenhouses, and vertical farms, making it ideal for controlled environment agriculture (CEA).
- Watercress is now widely available in mainstream markets and community-supported agriculture (CSAs), favored for its quick growth, profitability, and sustainability in urban and small-scale agriculture.

### Production & Distribution in the United States

❖ Watercress is cultivated in 41 states in the U.S. (USDA, 2024).

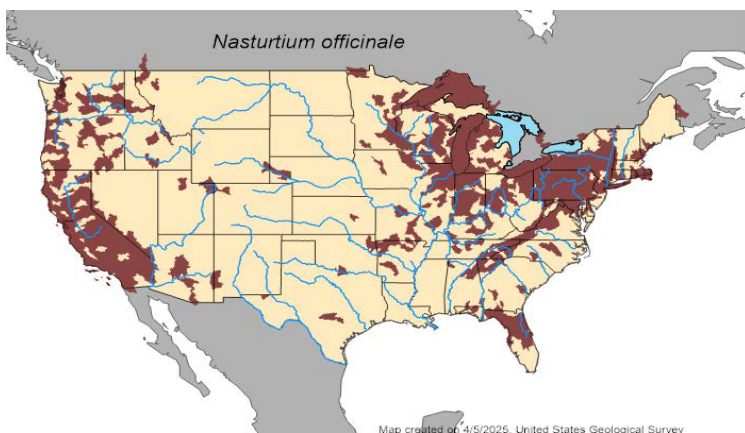


Figure Source: H. Mohlenbrock. (1995). USGS & USDA *Nasturtium officinale* W.T. Aiton. Accessed from : <https://nas.er.usgs.gov/queries/factsheet.aspx?SpeciesID=229>

### Germination of Watercress

- ❖ Germination period: 5 to 7 days under optimal conditions
- ❖ Temperature: 50–65°F (10–18°C) for best results
- ❖ Light: Seeds need light to germinate – do not bury them deeply
- ❖ Growing medium: Use damp paper towels, coconut coir, peat pellets, or sterile soilless mix (e.g. Rockwool)
- ❖ Moisture: Keep medium consistently moist but not waterlogged
- ❖ Humidity: Use a humidity dome or plastic wrap to retain moisture during the early stages
- ❖ Germination method: Can be done in seed trays, plug trays, or hydroponic germination stations
- ❖ Water quality: Preferably use clean, chlorine-free water
- ❖ Transition: Once germinated, seedlings can be transferred to hydroponic or soil-based systems.

### Why Watercress Deserves Your Attention!

- ✓ Short growth cycle (10–14 days)
- ✓ High market demand
- ✓ Sustainability friendly
- ✓ Educational value for school gardens and teaching farms



Figures : Dr. Adeyeye and Cora Teets cultivating watercress in deep water hydroponic system at The Ohio State University 2025.

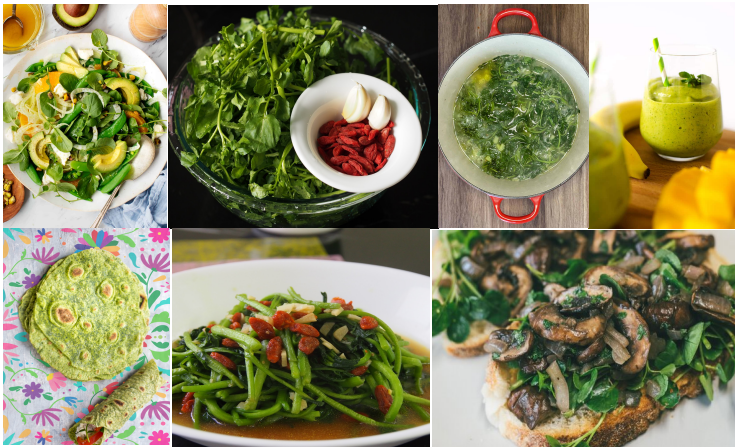
## Health Benefits of Watercress

- ✓ **Immune Support:** Rich in vitamins and antioxidants that strengthen immunity and help fight illness.
- ✓ **Heart Health:** Low in calories and cholesterol, with antioxidants that may lower blood pressure and support cardiovascular function.
- ✓ **Anti-inflammatory:** Contains phytonutrients that help reduce chronic inflammation.
- ✓ **Skin & Vision:** Vitamins A and C promote skin health and protect vision by reducing oxidative stress.
- ✓ **Digestive & Detox Support:** High fiber content supports digestion, gut health, and regularity.
- ✓ **Bone Health:** Packed with Vitamin K and calcium, aiding in bone strength and density.

## Watercress in Your Kitchen

- ❖ Smoothies: Blend into your favorite smoothie combo
- ❖ Stir Fry: Add into rice or noodle stir fry for crunchiness
- ❖ Soup Addition: Mix in stew or soup for extra nutrient boost
- ❖ Sandwich Topping: add to sandwich as a flavorful and nutritious garnish
- ❖ Salad Green: Add into your traditional salad mix for a nutrient dense topping and extra spice

## Meals and Snacks with Watercress



<https://easyeverydayfood.com/stir-fried-watercress>

## Nutritional Composition of Watercress

- Watercress ranks among the most nutrient-dense foods per calorie according by the Centers for Disease Control and Prevention (CDC's) Aggregate Nutrient Density Index (ANDI).

### A Single Cup of Raw Watercress Provides:

Nutrient	% Daily Value
Vitamin K	Over 100%
Vitamin A	22%
Vitamin C	24%
Calcium	4%
Manganese	4%
Folate	6%
Protein	0.782g
Carbohydrate	0.439g
Fat	0.034g
Fiber	0.17g
Calories	3.74

## Impressive Watercress Health Benefits

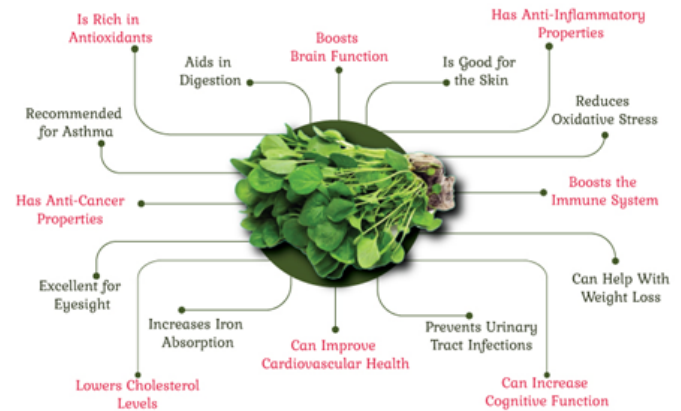


Figure Source: K. Well. (2025). 17 Benefits of Watercress. Accessed from <https://www.kayawell.com/Food/17-Impressive-Watercress-Benefits-common-cold-eyesight-improvement>

## Where to Source Fresh Watercress

- Local farmers' markets
- Hydroponic farms and urban greenhouses
- Supermarkets and produce stores
- Community Supported Agriculture (CSA) boxes
- Online specialty produce retailers

## Sources

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