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Food and Agriculture Organization of the United Nations



30 May International Day of Potato

A guide to the International Day of POTATO 2024

Harvesting diversity, feeding hope



www.fao.org/international-potato-day #InternationalDayOfPotato



Get started!

On 30 May, we spotlight the potato, *Solanum tuberosum* (L.) – a crop regularly consumed by billions of people. Potatoes are a key crop across agrifood systems globally, ranging from smallholders producing diverse heirloom varieties by hand in the Andes, to vast commercial, mechanized farms in different continents. As the third most available food crop globally, potatoes contribute to the food security, livelihoods and employment of people in rural and urban areas the world over.

The Day is an opportunity to build on the International Year of the Potato, which was observed in 2008. The observance will also be used to underscore the importance of the crop in combating hunger and poverty and addressing environmental threats to agrifood systems. The roles of small-scale family farmers, a significant proportion of whom are women, in safeguarding the crop's diversity will also be recognized, while the cultural and culinary dimensions of the crop's cultivation and consumption will be celebrated.

In December 2023, the United Nations General Assembly tasked the Food and Agriculture Organization of the United Nations (FAO) with facilitating the annual international observance. FAO is committed to supporting its Members to build sustainable, resilient value chains of crops that are appropriate for their context and adapted to local needs. The observance of the International Day of Potato aligns with the FAO <u>Strategic Framework 2022-31</u>, which supports the UN 2030 Agenda for Sustainable Development through the transformation to more efficient, inclusive, resilient and sustainable agrifood systems for better production, better nutrition, a better environment and a better life, leaving no one behind.



Potatoes and the Sustainable Development Goals (SDGs)

The potato is a crop of enormous global significance. Through its widespread cultivation and consumption, the crop contributes to key objectives of the SDGs, such as achieving zero hunger, promoting sustainable agriculture, and advancing economic opportunities. Potatoes are not just a staple in the diets of many people but also provide opportunities for employment and sustainable economic growth along their value chains.

Theme

Harvesting diversity, feeding hope

There are currently over 5 000 improved varieties and farmers' varieties/landraces, many of which are only produced and consumed by the Indigenous Peoples in the crop's centre of genetic diversity, the Andean highlands. Remarkably, there are about 180 wild relatives of the cultivated potato, with a wide range of desirable heritable traits, including adaptability to different environments and production systems; resistance to pests and diseases; and high densities of nutrients. The variations in size, colour and shape of the tubers are also astounding.

These wild relatives, though many may be unsuitable for human consumption, are therefore a veritable pool of 'raw materials' for breeding progressively superior varieties of potato that are adapted to changing environmental conditions; resistant to new biotypes of pests and diseases; and meet market demands and consumer preferences.

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Key messages

Potato is a crop that contributes to better agricultural production, better nutrition for people, a better environment and life.

Better Production: Promoting the adoption of good agricultural practices and key technologies can help millions of farmers to boost their productivity and incomes.

- Sustainable agronomic practices including integrated pest management need to be developed, validated and made available to farmers.
- Improvements in breeding help meet demand for locally appropriate and climate-smart varieties.
- Farmers need to have access to quality seeds of well-adapted and productive varieties that are most suited to production systems and ecologies.
- Farmers need support to access agronomic training and innovative technologies to boost yields and minimize loss and waste.

Better Nutrition: Potatoes are nutrient-rich, providing vitamins, minerals and dietary fibre.

- Potatoes are rich in vitamin C, which helps prevent scurvy.
- Potatoes are rich in potassium, an electrolyte, which contributes to the proper functioning of our heart, muscles and nervous system.
- Potato skin contains dietary fibre, which is important for the digestion of food in the human alimentary system.
- The nutritional value of the potato is highly dependent on the variety, climate, soil, cultivation techniques, storage conditions, processing, preparation and cooking method.
- While potatoes can be part of a healthy diet, this depends on the amount consumed, how they are processed, prepared and cooked, and the balance with the rest of the diet.







Better Environment: Adopting sustainable potato production systems can enhance adaptation to climate change and biodiversity.

- Cultivating a wide spectrum of productive varieties that are suited to the local conditions can enhance the resilience of potato cropping systems.
- Cultivating varieties of potato that are input use-efficient and hardy can reduce the crop's environmental footprint.
- Potato-legume intercropping or crop rotation systems require less chemical fertilizers and hence reduce greenhouse gas emissions.
- Environmentally friendly agronomic practices, such as precision irrigation and conservation agriculture, should be developed, validated and disseminated.

Better Life: Potatoes are a staple crop that can contribute to food security and create livelihood opportunities.

- The potato value chain, from cultivation through processing for added value and packaging to marketing, provide immense opportunities for decent employment for rural and urban dwellers, including women and young people.
- Potato-based snack production and marketing is a growing industry in urban areas

- providing opportunities for entrepreneurship for young people.
- Small-scale farmers, who are the custodians of the wide variety of potatoes, can improve their livelihoods through better access to innovative technologies and markets.

International Day of POTATO

From the Andes to world stage: the remarkable journey of the potato

Originating in the Andes Mountains, potato was known as the "flower of ancient Inca civilization", for whom it was a staple crop. Potato was introduced to Europe in the 16th century, from where it spread to the rest of the world subsequently. In just five centuries, potato has become a key food crop for diverse farmers and consumers across the globe.

In Europe, the potato reduced reliance on cereal crops as a staple and contributed to the process of urbanization by increasing food supply. In the Qing Dynasty in China, potato was credited with saving lives by helping to curb starvation. During times of conflict, with World War II as a notable example, potatoes played a crucial role in assuring food security thanks to their ability to produce relatively high yields and be consumed with minimal processing. The potato's role during such times underscores its importance in sustaining populations in crisis-affected regions, providing a source of sustenance when supply chains are disrupted and food access is compromised.

Every coin has two sides – an apt expression to reflect the history of potato. Ireland's Great Famine of the 1840s is a stark example of how a lack of diversity in the genetic base and cropping systems can lead to disastrous outcomes. The potato late blight, caused by Phytophthora infestans, decimated potato crops uniformly due to a lack of genetic diversity, resulting in poor yields leading to widespread famine and waves of emigration.

Fostering and protecting diversity, both in terms of on-farm and farming systems diversity, is essential to avoid crises in the future, as well as to ensure that potatoes make positive contributions to healthy and dynamic agrifood systems. The approximately 5 000 unique potato accessions are resources for the continued diversification of the crop's genetic base to take advantage of the crop's diverse characteristics and thereby reduce susceptibility to pests, diseases and the effects of climate change, and with greater adaptation to an ever-increasing range of environmental conditions. Innovations in cropping systems management and mechanization offer further possibilities to better integrate potatoes into more diversified, resilient farming systems.

Today, some estimates suggest that the consumption of fresh potatoes is on the decline, while consumption of highly processed foods, including those made from potatoes, are on the rise in most countries around the world – a trend that unfortunately is contributing to several forms of malnutrition.

Global agrifood systems are now at a crossroads, calling for a drastic reimagining of how we produce, process and consume foods. With its global availability, versatility in culinary traditions and potentially high yields in temperate and highland areas, potato can play a critical role in the ongoing quest to develop more environmentally sound, profitable and just production systems.





Calls to action

When we consume a range of potato varieties, we not only enrich our culinary cultures but also support the conservation of agricultural biodiversity. With thousands of varieties – each unique in colour, size, taste and nutritional properties, potato is more than just a staple crop, it is often the basis for culinary creativity and a key element in diverse agrifood systems.

There is something that each of us can do to promote lasting change. Initiatives to promote sustainable potato production and consumption may start on the International Day of Potato while their impacts could go well beyond. Here are examples of such actions.

Governments and international bodies:

- Create an enabling environment, including legal and institutional frameworks, to encourage sustainable production and consumption of multiple varieties of potatoes as part of healthy diets.
- Support research and development for more productive, resilient and dynamic production systems where potatoes are grown with complementary crops.
- Support research to develop potentially gamechanging technologies, such as the hybrid diploid potato and hybrid true potato seed.
- Promote the development of cold storage and potato seed multiplication so that farmers can reliably access and use suitable varieties.





Food business operators:

- Be a potato-pioneer! Make nutritious potato products available for consumers and minimize waste.
- Work with producers to explore new healthy preparations, eco-friendly packaging and distribution methods that reflect the potato's environmental benefits.

Parents and educators:

- Grow healthy habits! Potatoes can be part of a healthy diet considering the principles of diversity, balance, moderation and adequacy.
- When culturally appropriate, potatoes can be included in menus as components of nutritious and healthy meals in schools and households. Ensure children are motivated and learn how to follow healthy diets.
- Choose locally sourced potatoes to back the farmers who grow them and contribute to the health of the planet.





Non-governmental organizations and civil society:

- Organize community events that celebrate the cultural significance of potatoes, address food security issues, and develop fair and profitable potato value chains.
- Work with policymakers and farmers, including women, youth and Indigenous Peoples to ensure their needs are met in agricultural planning and development agendas.
- Highlight case studies, successes and lessons learned from projects implemented in the field, and innovations worthy of scaling.

How to participate



Organize an event

Celebrate the International Day of Potato by organizing an activity for the general public. You can host a webinar, panel or roundtable discussion with political leaders, educators, scientists, farmers and students followed by a question and answer session to encourage involvement. Share your knowledge and expertise with the public.

Home and community gardening

Start a group initiative to grow potatoes in a community garden or at a school garden to teach youth about how to grow potatoes and the health benefits, encouraging their healthy consumption. Learn about locally available potato varieties.

Engage your community

Contact your favourite local restaurant, community centre, office or school cafeteria and tell them about the International Day of Potato. Encourage them to promote and feature dishes with different potato varieties.

Get cooking

Match your local varieties to the cooking methods suggested in recipes. Find out which potatoes varieties are the most suitable. Chefs and food influencers can show their networks how to include different potatoes in dishes, according to taste and texture. Families can continue culinary traditions that feature potatoes. Encourage friends and coworkers to share delicious and healthy potato recipes.

Innovate!

If you are working on an innovative technology or have ideas to transform the potato value chain, share with the world! Share it with us at <u>International-Day-of-Potato@fao.org</u>, and we will feature them on the official website as they come in.

Get the media involved

Use your media contacts to spread International Day of Potato messages via newspapers, news sites, talk shows or at press conferences.

Spread the word

Join the online conversation and post using the hashtag #InternationalDayOfPotato! Amplify the messages on social media.

Facts and figures

With around **5 000 varieties, the diversity of potatoes plays a vital role in global food security and nutrition**. This range is essential in adapting to different environments and production systems and tackling climate change, as each variety has unique resilience traits.

As the **third most available food crop globally**, after rice and wheat, potatoes are a staple in the diets of billions.

About **two-thirds of the world's population includes potatoes as an element in their diet**, indicating the widespread reliance on this tuber for nourishment.

Despite a 17 percent decrease in the global potato area from 2000 to 2020, total production increased by 11.25 percent. This enhanced efficiency, due to improved varieties and agronomic practices, means that **potatoes allow for more production with less land**, contributing to sustainable cropping systems.

Around the world, **rural women are vital for the conservation, planting, harvesting and marketing of potatoes**. Traditionally, women in developing countries provide most of the labour for potato production.

A total of **159 countries in the world have potato crops on a total of 17.8 million hectares**. 374 million tons of potato are produced in the world annually.

Potatoes contain antioxidants, which are natural compounds that help protect the body against damage. These antioxidants can contribute to **maintaining healthy cholesterol levels, with the potential to support heart health.**

Potatoes are also used to produce bio-based products like biodegradable plastics. Potato starch is being creatively used as a sustainable alternative to traditional plastics. These materials based on **potato proteins and starch can be used for various packaging**, like food containers and medicine capsules. Plus, they're gluten-free and environmentally friendly, making them a smart choice for the food industry.

A potato park in the Andes. The 12 000-hectare potato park located in the Andes near Cusco, Peru is one of the few conservation initiatives in which local Indigenous communities are managing and protecting their potato genetic resources and traditional knowledge of cultivation, plant protection and breeding. The approach could serve as a model for other indigenous communities because biological diversity is best rooted in its natural environment and managed by Indigenous Peoples who know it best.

Communication materials

You can produce a range of materials including T-shirts, caps, mugs and bags using our free graphics. Remember to use the International Day of Potato visual as much as possible across your events and activities and to download the backdrop or event banner.

To facilitate promotion of the International Day of Potato, communication materials in Arabic, Chinese, English, French, Russian and Spanish can be downloaded and shared. Please see the:

<u>Website</u>

Trello board

Digital media hub

Tell us about your event

Let us know your plans and share news and photos of your initiatives at: International-Day-of-Potato@fao.org

Join the conversation

Use the hashtag **#InternationalDayOfPotato** on social media platform to express your support.



