Food and Agriculture Organization of the United Nations

Global Forum on Food Security and Nutrition
• FSN Forum •

IN BRIEF

Pulses for food security and nutrition:

How can their full potential be tapped?

FSN Forum brief based on the online discussions *Pulses are praised for their health, environmental and economic benefits. How can their full potential be tapped?* and *Pulses: innovations from the field to the cooking pot*, which were held from 25 May to 19 June 2016 and from 14 October to 4 November 2016 respectively. The discussions, along with two webinars, were organized in the context of the International Year of Pulses 2016. Visit the discussion webpages at:

- www.fao.org/fsnforum/activities/discussions/pulses
- www.fao.org/fsnforum/activities/discussions/pulses2

2016 INTERNATIONAL YEAR OF PULSES

OVERVIEW

Worldwide, the consumption of pulses has seen a slow but steady decline. One the one hand, the availability of other products has led people to abandon their traditional diets, and rising incomes have led to shifts towards food derived from livestock. Reasons for this low consumption include the fact that pulses have been regarded as "protein for the poor", a lack of familiarity with the different types and their benefits, their limited attractiveness, and their long preparation time. On the other hand, pulse production has been limited. Stronger support for – and the higher financial returns from – the production of cereals have contributed to pulses being grown on marginal lands and to their low levels of cultivation in general. In addition, biotic and abiotic stresses, lack of access to quality inputs, and limited industrial development hamper improvements in productivity.

However, despite these challenges there is a wide consensus on the benefits pulses offer in the following areas:

- **Food security.** In particular in developing countries, pulses have been extensively produced and consumed.
- **Nutritional value.** Pulses are an important source of protein and of micronutrients such as amino acids, iron and zinc.
- **Health.** Pulses contain no cholesterol, have a low glycaemic index and have low fat content – hence they can contribute to fighting non-communicable diseases.
- **Sustainable agriculture and climate change mitigation.** The broad genetic diversity of pulses allows for the selection of climate-resilient varieties, and their nitrogen-fixing ability improves soil quality and produces a low carbon footprint.

Yet, to fully tap the potential of pulses, actions promoting their consumption, production and value chain development are needed.

PROMOTING AND SUSTAINING CONSUMPTION

Encouraging pulse consumption requires a multisector approach that should be adapted to different socio-economic realities. Making pulses accessible and attractive, responding to the aspirations of consumers and tackling new consumer trends implies taking the following actions:

- **Raise awareness on the health and nutrition benefits of pulses** in addressing malnutrition (particularly focusing on children's and women's diets) and non-communicable diseases by involving social media, dieticians, health professionals, etc.
- **Incorporate pulses** in public distribution systems, food aid programmes and public procurement.
- **Invest in product innovation**, broadening the range of commercial preparations and diversifying the use of pulses, in response to the needs of specific target groups (e.g. athletes).
- **Promote updated and innovative recipes**, which should in turn be integrated into mainstream culinary-oriented media.
- **Promote research and raise awareness on fast-cooking and fast-soaking methods**, in particular to increase the use of pulses among city-based consumers.
- **Increase knowledge on healthy pulse utilization**, such as on cooking methods that reduce the antinutritional factors and enhance the nutritional benefits of pulses, and on combining pulses with other foods that enhance the body's ability to absorb the nutrients contained.

SUPPORTING PRODUCTION

In order to increase pulse cultivation and yields, an inclusive approach is needed which considers farmers' resource limitations, confronts the realities in diverse socio-ecological environments, and addresses external factors affecting production, such as the competition of pulses with cereals. The following actions should be considered:

- **Increase investment in research and development** to improve productivity and make the information produced accessible to and understandable for farmers.
- **Invest in breeding underutilized, high-quality varieties that are pest-, disease- and climate-resilient**.
- **Support seed systems** that empower smallholders and improve the availability of and access to varieties that are suited to local conditions.
- **Promote cropping systems** that allow for taking advantage of the beneficial impacts of pulses, such as crop rotation and intercropping.
- **Realize higher and more stable incomes for farmers** by promoting access to markets and establishing cooperatives, minimum support prices and weather-based price insurance.

STRENGTHENING THE VALUE CHAIN

In aiming to strengthen pulse value chains, different production models, and in particular smallholder farming and commercial agriculture, should be considered. Actions to be undertaken include the following:

- **Support networks** such as pulse commodity associations and organizations that connect the different actors in the pulse value chain.
- **Stimulate the development of agribusiness services to support smallholders** in increasing production and improving quality. Partnerships with agribusiness services are essential for easier access to mobile units, mechanization, silos and threshers.
- **Develop storage warehouses and logistics**. Storage units could be connected to structured trading platforms and serve as reserve stocks for supplying large orders or as collateral with the commodity exchange.
- **Encourage the development and supply of tools for producing and processing legumes**, such as the introduction of low-cost pulse processing machines at the community level.
- **Control the role of intermediaries** to ensure fair prices for producers.
- **Stimulate commercialization**, which entails investing in value addition and collaboration with the food and nutrition sector to develop pulse(-based) products.

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I6690EN/1/12.16