

## 2016 – International Year of Pulses

### Why pulses matter

Pulses are members of the legume family that produce dry, edible seeds. Only legumes harvested for dry grain are classified as pulses. Pulses include common beans, chickpeas and lentils which are grown globally. Other more regionally-specific types of pulses include cowpea, faba beans and pigeonpea. The term grain legume includes pulses as well as other legumes such as soybean and groundnuts.

An estimated 60 million tonnes of pulses are produced annually in around 55 countries. Developing countries are the largest producers of pulses, accounting for 70% of global production. Asia accounts for over 25% of production, followed by Africa, Europe, Latin and North America. Major producers include India, China, Pakistan, Canada, Brazil and Australia. Up to 25% of pulses are used as an animal feed (particularly for pigs and poultry) with the majority used for food.

Grain legumes are an important crop in the developing world for a number of reasons. They are a particularly rich source of protein, consisting of up to 25% of protein by weight, double the protein content of wheat and triple that of rice. They are also a source of fibre, amino acids, minerals (iron, zinc, magnesium, potassium and phosphorus) and B-vitamins (thiamine, riboflavin, niacin, B<sub>6</sub> and folate), and have a low fat content. Their antioxidant content has also been linked to the prevention of chronic diseases and obesity.

In addition, pulses grow rapidly, often in relatively poor soils, require a fraction of the water required by many other crops and are easily stored without losing their nutritional value. This and their ability to fix nitrogen and improve soil health (with less need for fertilisers) makes them a key cover, intercropping or rotation crop in the sustainable intensification and diversification of smallholder farming. Using pulses in rotation with cereals has been shown, for example, to increase cereal yield and protein content. This makes pulses a key food security crop in the developing world as well as contributing to a more sustainable, climate-smart agriculture.

Yields in developing countries are low (at under 40% of those in the developed world) as a result of such factors as the need for improved varieties of seed, poor seed distribution, the impact of pests and diseases, as well as vulnerability to poor soils, drought and other effects of climate change. Research is addressing these challenges.

#### References and further reading

<http://iyp2016.org>

[www.fao.org/pulses-2016](http://www.fao.org/pulses-2016)

<http://grainlegumes.cgiar.org/>

Anon. (2009), *International Conference on Grain Legumes: Quality Improvement, Value Addition and Trade*, Indian Institute of Pulses Research, Kanpur, India.

#### Experience



#### Engagement



#### Innovation

