

Asia/Oceania: Potato production, 2007

country	area harvested (hectares)	quantity (tonnes)	yield (tonnes/ha)
Afghanistan	20 000	300 000	15.0
Armenia	31 612	579 571	18.3
Australia	32 000	1 150 000	35.9
Azerbaijan	67 110	1 037 317	15.5
Bahrain	2	40	20.0
Bangladesh	310 000	4 300 000	13.9
Bhutan	6 200	57 000	9.2
China	5 000 000	72 040 000	14.4
Cyprus	5 500	135 000	24.5
Democratic People's Republic of Korea	190 000	1 900 000	10.0
Fiji	10	80	8.0
French Polynesia	100	900	9.0
Georgia	21 200	229 200	10.8
India	1 600 000	26 280 000	16.4
Indonesia	60 000	1 014 200	16.9
Iran (Islamic Republic of)	210 000	5 240 000	25.0
Iraq	45 000	740 000	16.4
Israel	17 000	658 803	38.8
Japan	83 000	2 650 000	31.9
Jordan	5 000	170 000	34.0
Kazakhstan	155 000	2 414 800	15.6
Kuwait	850	23 500	27.6
Kyrgyzstan	86 430	1 373 780	15.9
Lao People's Democratic Republic	5 500	36 000	6.5
Lebanon	19 000	490 000	25.8

country	area harvested (hectares)	quantity (tonnes)	yield (tonnes/ha)
Mongolia	11 462	114 490	10.0
Myanmar	36 000	510 000	14.2
Nepal	153 534	1 943 246	12.7
New Caledonia	180	2 400	13.3
New Zealand	10 050	505 000	50.2
Occupied Palestinian Territory	2 200	66 000	30.0
Oman	319	9 067	28.4
Pakistan	131 900	2 622 300	19.9
Papua New Guinea	200	900	4.5
Philippines	5 600	72 000	12.9
Qatar	5	45	9.0
Republic of Korea	22 500	625 000	27.8
Saudi Arabia	24 000	570 000	23.8
Sri Lanka	5 330	77 390	14.5
Syrian Arab Republic	30 000	640 000	21.3
Taiwan Province of China	1 600	40 000	25.0
Tajikistan	29 800	659 900	22.1
Thailand	7 981	125 703	15.8
Timor-Leste	400	1 000	2.5
Turkey	158 500	4 280 700	27.0
Turkmenistan	26 800	159 000	5.9
United Arab Emirates	310	7 900	25.5
Uzbekistan	50 500	890 000	17.6
Viet Nam	35 000	370 000	10.6
Yemen	18 276	231 432	12.7
Asia/Oceania	8 732 961	137 343 664	15.7

Source: FAOSTAT

Top producers, 2007

1 China	8 Kazakhstan
2 India	9 Nepal
3 Islamic Republic of Iran	10 Democratic People's Republic of Korea
4 Bangladesh	11 Kyrgyzstan
5 Turkey	12 Australia
6 Japan	13 Azerbaijan
7 Pakistan	14 Indonesia



Asia and Oceania

Asia and Oceania includes the world's potato giant, China, which accounts for more than 20 percent of both the global potato-growing area and the world potato harvest. Several other Asian countries – Bangladesh, India, the Islamic Republic of Iran, Japan and Turkey – also figure in the world's top 20 potato producing countries. Some of the world's best yields are recorded in New Zealand – on average, around 42 tonnes per hectare.

1. China



China is the world's biggest potato producer, with an output in 2007 of 72 million tonnes.

It is also an increasingly important global supplier, with potato exports totalling some 250 000 tonnes (raw equivalent) in 2005.

The tuber probably reached coastal China

aboard ships from Europe during the 17th century and was introduced to central China by Russian traders around the same time. Production has increased nearly fivefold since 1961. Although Chinese potato output ranks behind that of maize and sweet potato, more than 80 percent of the maize and 40 percent of the sweet potato are used as animal feed. Most of the potatoes go directly to human consumption, and each year, the Chinese consume 40 kg per head.

The potato is important to China not only as a staple food, but also as a source of income, especially for farmers in mountainous areas with poor soils. In northern China's Inner Mongolia and Shanxi provinces, sales of potato account for more than half of rural household earnings. To help cope with growing shortages of water and land for agriculture, Chinese scientists have proposed a major expansion of potato cultivation in dry areas, which account for 60 percent of China's arable land.



FENG TANG

Roasting potatoes in Zao Tong, China



Potato harvest
in Tamil Nadu,
southern India

2. India



The potato reached India in the late 16th or early 17th centuries, most likely aboard ships from Portugal. Today, India ranks as the world's third largest potato producing nation, with production in 2007 of around 26 million tonnes.

Between 1960 and 2000, potato production increased by almost 850 percent, partly in response to growing demand from higher-income urban populations. Since 1990, per capita consumption has risen from around 12 kg to 17 kg a year.

In India, the *aloo* is not primarily a rural staple but a cash crop that provides significant income for farmers: the value of the 2005 harvest is estimated at \$3.6 billion and exports totalled about 80 000 tonnes that year. Potato varieties suited to the country's climate – hot summers and short winters – are grown on the Indo-Gangetic plain during the shorter days from October to March, while some year-round production takes place in relatively high altitude areas in the south.

3. Islamic Republic of Iran



A British ambassador, Sir John Malcolm, is said to have introduced the potato to the royal court of Persia during the early 1800s. For a time, the tuber was known as “Malcolm's plum”, but it is called the “earth apple” by today's Iranians.

Iran is the world's No. 12 potato producer and the third biggest in Asia, after China and India. Since 1961, production has increased more than 15 times over. In 2007, the country's farmers achieved an all-time record harvest of 5.24 million tonnes, with per hectare yields averaging 25 tonnes. The potato is one of Iran's leading agricultural exports, with shipments in 2005 totalling around 166 000 tonnes.

Potatoes are grown mostly under irrigation around the southern shore of the Caspian Sea, in the Zagros Mountains, and on the southern lowlands, alternated with wheat, vegetables, sugar beets and fallow in three or four year rotations. Traditional varieties prized for their culinary qualities continue to be grown in the mountainous north.

4. Bangladesh



A British governor promoted potato cultivation in Bengal in the 1770s, and within a century it was a well established garden vegetable. However, large scale production was held back by the lack of suitable varieties: European cultivars were not adapted to the hot Bengali plains.

Today, the potato has become a highly successful October-March winter crop in Bangladesh, with a production value – estimated at \$560 million in 2005 – second only to that of paddy rice. In 2007, Bangladeshi farmers harvested 4.3 million tonnes of potatoes (12 times more than in 1961), which placed the country at No. 14 among the world's potato producers, and No. 4 in Asia.

The potato is usually grown for cash sale, and much of national production is concentrated near the capital, Dhaka, the country's largest urban market. Annual consumption has been growing briskly, from around 7 kg per capita in 1990 to more than 24 kg in 2005.

5. Turkey



In some areas of Anatolia, local potato varieties are still called *ruskartoe*, commemorating the tuber's introduction from the Russian Caucasus in the early 1800s. Potato cultivation has been officially encouraged in Turkey since 1872, and today the country is the Near East's biggest producer after Iran, with output in 2007 of almost 4.3 million tonnes.

Second only to tomatoes as a horticultural crop, the *patates* is grown on an estimated 158 000 ha of land across the country. The Anatolian central plateau, with its hot, dry summers and cold winters, is the most important producing region, accounting for nearly half of the national potato area, while intensive cultivation is conducted on the Aegean and Mediterranean coasts. Yields in 2007 were a high 27 tonnes per hectare.

Turkey's current production hovers at 1990 levels, and is well below the 2000 record harvest of 5.4 million tonnes. Annual per capita potato consumption is contracting, from 63 kg in 1990 to a less than 50 kg in 2006.

6. Japan



The potato was probably brought to Japan by Dutch traders who established an enclave in Nagasaki early in the 17th century. But widespread cultivation of the tuber did not begin until late in the 19th century, when it proved well suited to the cool summers of the northern island of Hokkaido.

Today, Hokkaido's potato farmers produce yields of more than 41 tonnes per hectare and account for about two-thirds of the national harvest, which totalled some 2.6 million tonnes in 2007. While that placed the country at No. 6 among Asia's potato producers, it was also one of the smallest harvests recorded since the 1960s, when Japan was producing up to 4 million tonnes a year.

Along with the steady decline in production over recent decades, there has been a shift from home preparation to consumption of



62 ✨ International Year
of the Potato 2008
*New light on a hidden
treasure*

processed potato products such as chips and French fries. To meet domestic demand, Japan imports each year some 650 000 tonnes of potatoes, mainly from China.

7. Pakistan



Although potato was grown on the Indian subcontinent from the late 16th or early 17th centuries, at Pakistan's foundation in 1947, cultivation was restricted to a few thousand hectares and total annual output was less than 30 000 tonnes.

In the decades since independence, the *aalu* has become the country's fastest growing staple food crop. Thanks to strong gains in cultivated areas and average yields – both made possible mainly by irrigation – output rose between 1995 and 2007 from one million to a record of more than 2.6 million tonnes. The lion's share of potato production comes from the Punjab, where spring and autumn crops account for 85 percent of the national harvest.

Apart from some subsistence growers in the north, most Pakistani farmers produce for urban markets rather than household consumption, and the potato has become a significant source of rural income (worth some \$300 million in 2005). At present, annual intake is around 11 kg per capita.

8. Kazakhstan



At the breakup of the Soviet Union in 1991, Kazakhstan was producing annually around 2.5 million tonnes of potatoes from an area of 240 000 ha. In the turmoil of the following decade, there was a steady decline in the size of the potato growing area and in potato output, which dropped to 1.2 million tonnes in 1998.

Since then, production has rebounded, thanks largely to rapid gains in average per hectare yields, which rose from 7.6 tonnes in 1998 to more than 15 tonnes in 2007. In that year, Kazakh potato farmers harvested some 2.4 million tonnes of tubers from 155 000 ha of land.

Today, the potato is Kazakhstan's most important food crop after wheat, with average per capita consumption of a high 100 kg a year. While most potatoes are consumed fresh or used as fodder, recent years have seen strong growth in exports of processed potato products, which rose from 1 000 tonnes in 2000 to more than 15 000 tonnes in 2005.

9. Nepal



The first record of potatoes in Nepal dates back to 1793. Although it remained a relatively minor crop for the next 180 years, some researchers say that its early introduction to the high altitude Himalayas helped fuel the rise of Buddhist civilization in northern Nepal.

In the 1970s, a national potato development programme, aiming at improving the quality of seed potato,



G.M. BAKASH

Potatoes carried to market in Panuty district, Nepal

stimulated a rapid expansion of both cultivated area and production, which increased from 300 000 tonnes in 1975 to a record 1.97 million tonnes in 2006. The potato is now Nepal's second staple food crop, after rice, and per capita consumption has almost doubled since 1990 to 51 kg a year.

Potatoes are widely grown in Nepal, at below 100 m altitude in the south to as high as 4 000 m in the northern mountains. The tuber is particularly favoured by farmers in high hills areas (roughly 1 800 to 3 000 m), where it is more productive than rice and maize and the cool climate is well suited to production of seed tubers for sale at lower altitudes.

10. Democratic People's Republic of Korea



The potato was introduced to the Korean peninsula – probably from China – during the early 1800s. It became a staple crop during the Japanese occupation from 1910 to 1945, replacing rice exported to Japan, and saved many farming families from starvation during the Second World War.

The potato remains an essential food security crop in the Democratic People's Republic of Korea. In 2007, it produced an

estimated 1.9 million tonnes, placing the country among Asia's top 10 producers. The area under potato has grown from 36 000 ha to almost 200 000 ha since 1960, while potato output has increased fourfold over the past decade.

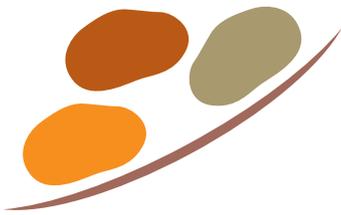
Farmers' average yields, however, have barely improved over 1960 levels, mainly owing to shortages of agricultural inputs and the lack of virus-free seed potato. To boost production, the government is promoting a "potato farming revolution". Innovations include a low-input potato-rice cropping system that produces, in a relatively short growing season, 32 tonnes of potatoes and rice per hectare.

11. Kyrgyzstan



Lying at the heart of Asia, along the ancient Silk Road, Kyrgyzstan was introduced to the potato – and its Russian name, *kartófil* – during the 1800s. Although the mountainous country is suitable mainly for grazing livestock, the new crop flourished in the temperate climate of the northern foothills, and today Kyrgyzstanis praise the potato as their country's "second bread".

Since 1992, potato production has increased almost fourfold, from 360 000



tonnes to a record 1.37 million tonnes in 2007. By head of population, Kyrgyzstan now ranks as the world's 10th largest potato producer, while its annual consumption of potato – more than 140 kg per capita – is second only to that of Belarus.

Potato growing in Kyrgyzstan is held back by shortages of virus-free seed tubers, improved varieties and agricultural inputs. But the country's rapidly expanding production has attracted investors – recently announced joint ventures with companies from India and the Republic of Korea are building potato processing plants that aim at producing 40 000 tonnes of starch and bio-ethanol a year.

12. Australia



Potatoes were aboard the ship of explorer James Cook when he claimed eastern Australia for Britain in 1770, and their cultivation began along with colonization 18 years later. Today, “spuds” are grown across the continent, from the temperate southern state of Tasmania to tropical North Queensland.

Australian potato production more than doubled between 1960 and 1990 – from 450 000 tonnes to 1.2 million – but since then output has stabilized at an annual average of about 1.3 million tonnes. Potatoes are the country's most important horticultural crop, accounting for more than 40 percent all vegetables grown. Some 60 percent is processed into frozen products and crisps, while about 37 percent is marketed fresh.

Competition from foods such as pasta and rice has made recent inroads into the fresh potato market, and FAO estimates that between 1995 and 2005 annual per capita consumption of potatoes slipped from 55 kg to 53 kg.

13. Azerbaijan



Azerbaijan became part of the Russian empire in 1828 and was a Soviet republic from 1920 to 1990. During that time, rice, which had been traditionally cultivated in the foothills of the Caucasus mountains, gave way to potato (known as *kartoşka*) in both agriculture and Azerbaijani cuisine.

Today, Azerbaijan continues to expand its potato production. Since 1992, the area under potato has tripled, while yields have more than doubled. As a result, the national harvest grew from 156 000 tonnes at the beginning of the 1990s to a record 1.1 million tonnes in 2006, only slightly less than wheat production (rice output in 2006 was just 5 000 tonnes).

Potato yields average around 17.5 tonnes per hectare, but improved management techniques recently introduced by experts from Israel have boosted output to more than 50 tonnes in some areas. Azerbaijanis currently consume around 82 kg of potatoes per capita per year and, to meet demand, the country recently increased imports of potatoes from Russia.



NIJR MUHAMMAD SYARIFUDDIN

*In the highlands
of Java, Indonesia*

14. Indonesia

 The Dutch East India Company brought potatoes to West Java around 1795, and within 15 years the *kentang holanda* (or “Dutch tuber”) was being grown by Batak farmers in the highlands of northern Sumatra.

Today, Indonesia is the biggest potato producer in southeast Asia. Between 1960 and the mid-1990s, the country’s potato output grew at a rate of almost nine percent per year, and since 2003 annual production has averaged more than one million tonnes.

Potato is cultivated throughout the archipelago, in highland areas of between 800 and 1 800 m, mainly by small scale farmers.

Potato growers are largely dependent on seed tubers imported from Germany and the Netherlands. While some potatoes are grown for export, mainly in northern Sumatra, the bulk of Indonesia’s potato harvest is destined for fresh consumption in large urban areas. Indonesia imported some 32 000 tons of potatoes in 2006 mainly for processing into food products.