



Europe: Potato production, 2007

country	area harvested (hectares)	quantity (tonnes)	yield (tonnes/ha)
Albania	8 200	154 900	18.9
Austria	22 675	668 755	29.5
Belarus	412 553	8 743 976	21.2
Belgium	68 106	2 877 685	42.3
Bosnia and Herzegovina	41 291	387 239	9.4
Bulgaria	22 427	290 553	13.0
Croatia	17 355	296 302	17.1
Czech Republic	31 908	820 515	25.7
Denmark	41 200	1 625 600	39.5
Estonia	11 150	191 754	17.2
Faroe Islands	100	1 400	14.0
Finland	27 300	701 600	25.7
France	145 000	6 271 000	43.2
Germany	274 961	11 643 769	42.3
Greece	35 500	830 000	23.4
Hungary	25 400	531 300	20.9
Iceland	712	13 000	18.3
Ireland	12 300	454 800	37.0
Italy	71 968	1 837 844	25.5
Latvia	40 300	642 000	15.9
Lithuania	52 800	576 100	10.9

country	area harvested (hectares)	quantity (tonnes)	yield (tonnes/ha)
Luxembourg	600	20 200	33.7
Malta	700	14 146	20.2
Montenegro	10 000	130 000	13.0
Netherlands	161 000	7 200 000	44.7
Norway	14 421	318 357	22.1
Poland	569 600	11 791 072	20.7
Portugal	41 400	638 900	15.4
Republic of Moldova	353 500	199 000	0.6
Romania	267 035	3 705 694	13.9
Russian Federation	2 851 660	36 784 200	12.9
Serbia	81 379	743 282	9.1
Slovakia	17 769	287 667	16.2
Slovenia	5 736	131 050	22.8
Spain	89 000	2 502 300	28.1
Sweden	28 522	790 100	27.7
Switzerland	11 800	490 000	41.5
The Former Yugoslav Republic of Macedonia	14 000	180 900	12.9
Ukraine	1 453 300	19 102 000	13.1
United Kingdom	139 000	5 635 000	40.5
Europe	7 473 628	130 223 960	17.4

Source: FAOSTAT

Top producers, 2007

1 Russian Federation	8 United Kingdom
2 Ukraine	9 Romania
3 Poland	10 Belgium
4 Germany	11 Spain
5 Belarus	12 Italy
6 Netherlands	13 Denmark
7 France	

Europe

For most of the 20th century, Europe was the undisputed world leader in potato production. While that honour has now passed to Asia, seven European countries are among the top 10 global producers. The continent also has the highest level of potato consumption in the world (almost 90 kg per capita per year). Many western European countries are shifting from potato growing to processing and production of seed tubers for export.

1. Russian Federation

 Legend has it that Czar Peter the Great, on his voyage through western Europe in 1697, sent home Russia's first bag of potatoes. But for more than a century afterwards, the new tuber was widely considered poisonous and shunned as "the devil's apple".

When Russian farmers finally warmed to the potato, in the mid-1800s, there was no stopping them. By 1973, Russia was producing, along with the other then-Soviet republics of Belarus and Ukraine, more than 100 million tonnes of potatoes a year. Since then, the area dedicated to potato has fallen steadily, and Russia's annual production over the past 15 years has stabilized at around 35 million tonnes.

Nevertheless, the Russian Federation remains a "potato giant", with output second only to China in 2007, and the average Russian consumes a hearty 130 kg of potatoes a year. More than 90 percent of Russian

potatoes are grown on household plots and private farms, with average yields of 13 tonnes per hectare. Pests and diseases are a major problem: as much as 4 million tonnes are lost annually to Colorado beetle, late blight and viruses.



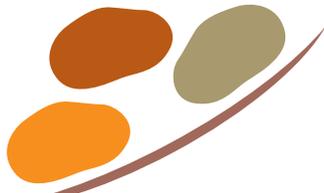
MARIA KUSHICHEVA

2. Ukraine

 Although potatoes have been grown in Ukraine since the 18th century, the crop adapted slowly to the Ukrainian climate and was initially used mainly to produce starch and alcohol. It was only during the 20th century that the crop came to be widely cultivated for food, to the point that it now revered as the country's "second bread", and potato-filled *perogie* dumplings are a favourite national dish.

Ukraine is the world's No. 5 producer of potatoes, after China, the Russian Federation, India and the United States of America, and

The Russians call it kartófil



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

consumes per capita a very high 136 kg a year. Around half of the country's 1.5 million hectares of potato farms are located on the black soils of the forest-steppe zone in central Ukraine, although the best yields are obtained in the Polesye wetlands of the north.

Production in 2004 reached a record 20.7 million tonnes, with average yields of around 13 tonnes per hectare. Despite its great production volumes, however, Ukraine is not a potato exporter: a large part of the crop is lost each year to pests – mainly the Colorado potato beetle – and inadequate storage.

*The potato
is Ukraine's
"second bread"*

ALEXEI MELNIK



3. Poland



The Polish King John III Sobieski is credited with having introduced potatoes – known initially as *amerykany* (from “America”) – to his countrymen in the mid-1600s, after a visit to Vienna. Thus began a love affair that was to make Poland one of the 20th century's giants of potato production.

By 1970, the country was harvesting more than 50 million tonnes of potatoes a year, a quantity bettered at the time only by the Soviet

Union. Today, Poland still ranks among the top 10 world producers. However, harvests have declined in recent years, slipping from 36 million tonnes in 1990 to 24.2 million tonnes in 2000, then plummeting to a record low of less than 9 million tonnes in 2006. The 2007 harvest of almost 11.8 million tonnes was a welcome “return to form” for Polish production.

Ziemniaki are at the heart of Polish agriculture, grown by an estimated 2.2 million farmers using 10 percent of the total area for field crops. By recent estimates, almost half of the potato crop is used as farm animal feed, while 25 percent goes to human consumption, which was around 130 kg per capita in 2005.

4. Germany



Taken to Germany at the end of the 1500s, the potato was grown almost exclusively as animal feed for the next 200 years. But, after a severe famine in the 1770s, German monarchs – notably Frederick the Great of Prussia – promoted the *kartoffel* as a staple food crop as well.

Today Germany is the world's seventh largest potato producer, and the biggest in western Europe, with output in 2007 of just over 11.6 million tonnes. Even so, German potato production has been falling since 1960 – at that time, the harvest was almost 33 million tonnes and potato growing occupied 10 percent of all arable land, compared to less than three percent today.

Germany is a major potato processor and exporter. In 2005 it processed 6.5 million



tonnes of potatoes, including 3.3 million tonnes transformed into potato starch, and exported 1.3 million tonnes of fresh potatoes and 2 million tonnes (primary equivalent) of processed products. It is also a leading importer of early potatoes (nearly 550 000 tonnes, mostly from France, Italy and Egypt, in 2005).

5. Belarus



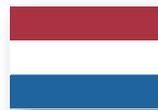
Belarusians love their potatoes. They consume more per head than any other country – an estimated 180 kg, or almost half a kilogram a day. The potato is believed to have been introduced to Belarus from the Netherlands, and by the 1800s had already become a staple food crop and the heart of the country's cuisine.

Today, Belarus ranks eighth among world potato producing countries, and its annual output – 8.7 million tonnes in 2007 – is about twice that of wheat and barley combined. Over the past 15 years, the country's harvested area has shrunk, from 780 000 ha to 400 000 ha, but production has held steady at an average of 8.6 million tonnes annually, thanks to yield gains.

During the Soviet era, Belarus bred improved potato varieties that were grown

on a third of all lands under potato in the USSR, and exported more than 500 000 tonnes of fresh potato and up to 300 000 tons of seed potato. Those days are now past: in 2005, potato exports amounted to less than 17 000 tonnes.

6. Netherlands

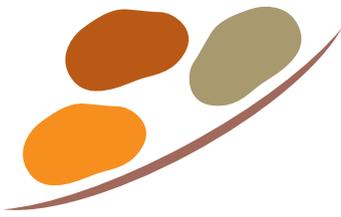


Within a century of its introduction to the Netherlands, in the 1600s, the potato had become one of the country's most important food crops. Today, the Netherlands ranks among the world's top 10 potato producers, with a harvest in 2007 of 7.2 million tonnes.

While potato production is declining in most of Europe, the Dutch still plant almost 25 percent of their arable land – some 160 000 ha – with *aardappel*, and have achieved world record average yields of more than 45 tonnes per hectare. The potato sector is highly mechanized and draws on a list of some 250 approved varieties.

Only half of the Netherlands' potato crop is grown directly for food – around 20 percent is seed potatoes, and the remaining 30 percent is processed into starch. About 70 percent of Dutch ware potatoes is exported in the form of fresh tubers and potato products, such as chips and flour. The

**The Netherlands
has achieved world
record yields**



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

Netherlands is the world's major supplier of certified seed potatoes, with exports of some 700 000 tonnes a year.

7. France



The *pomme de terre* was introduced to France at the beginning of the 17th century, but its true value as food was not recognized until the late 18th century, when a renowned scientist, A.A. Parmentier, recommended it as the solution to endemic famines that were then devastating the country.

Potato cultivation took off, with output rising from 1.5 million tonnes in 1803 to 11.8 million in 1865. Production reached its zenith in 1960, with a harvest of around 14 million tonnes. Since then, there has been a steady decline, with the 2007 harvest totalling just under 6.3 million tonnes. Some two million tonnes of France's potatoes are destined for the domestic fresh market, and one million tonnes for the processing industry. France is Europe's No. 1 exporter of fresh potatoes, with nearly 1.5 million tonnes shipped in 2005/2006, and dedicates some 14 500 ha for production of potato seedlings.

Today, the potato still has an important place in the national diet: the French consume each year nearly 30 kg per capita of fresh potatoes and another 25 kg of processed products.

8. United Kingdom



The potato reached the United Kingdom towards the end of the 16th century and was being grown in London by 1597. The new crop established itself rapidly in Ireland but less so in England and Scotland.

The potato's moment in the United Kingdom came later, during the Industrial Revolution of the 18th and 19th centuries, when the rise of towns – and the new working class – created demand for cheap, energy-rich, non-cereal foods. The rest is history. By 1948, production in England and Wales was peaking with almost 400 000 hectares under potato.

Since 1960, the harvested area has shrunk by half, and the number of registered potato growers from 70 000 to just 3 000. But the United Kingdom still ranks No. 11 among world potato producing countries, recording



LINDA WRIDE

*Fast food kiosk
in Oxford,
United Kingdom*

a 2007 harvest of 5.6 million tonnes and average yields exceeding 40 tonnes per hectare. With annual per capita potato consumption of 102 kg, demand for potato exceeds domestic supply: in 2005, the United Kingdom imported more than 1.2 million tonnes (raw equivalent) of processed potato products.

9. Romania



Romania is among the world's top 20 potato producers. It is also one of the few European countries where potato production has actually been increasing – from 2.8 million tonnes in 1961 to more than 4 million tonnes in 2006 – while potato consumption per capita has more than doubled since 1990.

The *cartof* was introduced to Transylvania from Germany in the 1700s. Today it is an important crop for Romania's agriculture and

national economy, and for the estimated 2.2 million Romanians who harvest tubers from their own small potato patches each year. Almost all of Romania's potatoes are marketed for fresh consumption, with just 2 percent being processed. In 2005, potato imports totalled more than 140 000 tonnes, while exports amounted to less than 5 000 tonnes.

Romanian researchers are exploring the potential of the potato as a source of ethanol for fuel – tubers produced in the southern zone of Romania under irrigation have yielded enough starch to produce around 4 000 litres of ethanol per hectare.

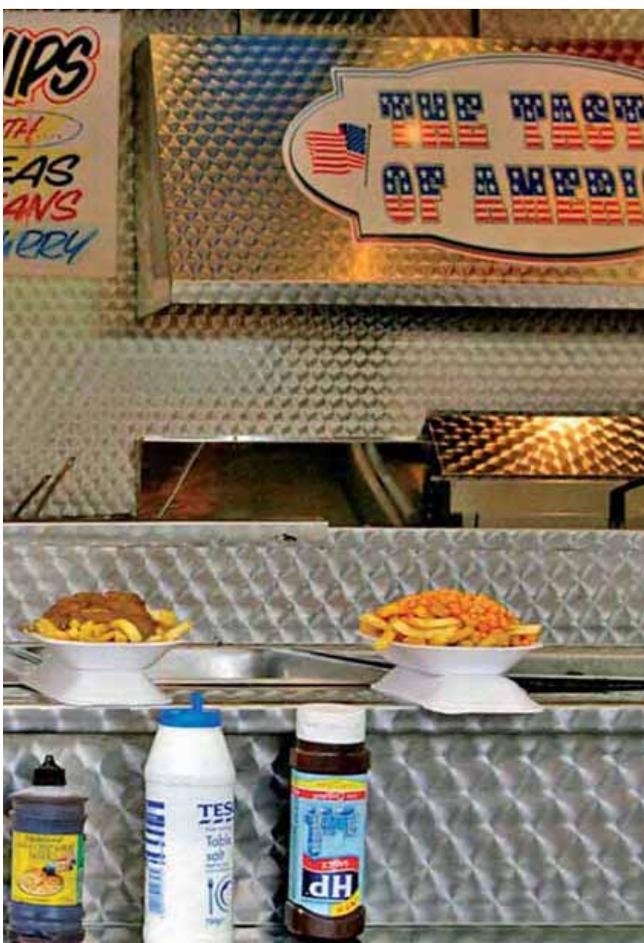
10. Belgium

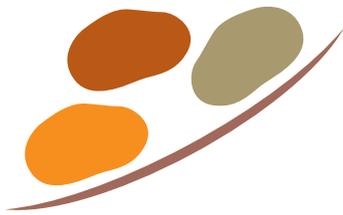


Old documents show that a Belgian official in Mons received potatoes as a gift from a friend of the Vatican ambassador in 1587 (the following year, he sent samples on to a botanist in Vienna). Within a century the Belgians had made a landmark contribution to potato development, with the invention – they claim – of French fries.

Today, Belgium ranks No. 19 among the world's potato producing countries, with output in 2007 of nearly 2.9 million tonnes. Thanks to average yields of 42 tonnes per hectare, the potato is the country's main food crop, even though the cultivated area is less than 5 percent of total farmland.

Less than 15 percent of Belgian potatoes are eaten fresh – about 86 percent are processed into crisps, frozen fries, starch and other products. In 2006, the country exported more than one million tonnes





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

of processed potatoes and 21 000 tonnes of seed potatoes. It also imported more than 1.2 million tonnes of fresh potatoes and 140 000 tonnes of potato products, mainly from France, Germany and the Netherlands.

11. Spain



While no one knows the exact date of the potato's arrival in Europe, its entry point was probably Spain's Canary Islands, where *S. tuberosum* was cultivated at least as early as the mid-1500s (later records show that potatoes were served to patients in the Hospital de la Sangre in Seville in 1573).

While initially prized more for its flowers than as a food crop, the *patata* was a mainstay of Spanish agriculture throughout most of the 20th century, with annual production exceeding 5 million tonnes up to the 1990s. Today, however, as elsewhere in western Europe, potato production is on the wane in Spain. In 2007, the country produced 2.5 million tonnes of tubers, while the harvested area has fallen from 270 000 ha in 1990 to less than 90 000.

As a result, Spain is now a major potato importer. Since 1990, annual imports of raw and processed potatoes, mainly from France, Germany, Italy and Morocco, have risen from 395 000 tonnes to 1.2 million tonnes.

12. Italy



In 1565, Spain's King Philip II is said to have sent to Rome a gift of potato tubers for Pope Pius IV, who passed samples on to a cardinal in Belgium. Along with the tubers went their Italian name – *tartufoli* (or “little truffles”) – which, as the samples were cloned and disseminated throughout Europe, was adopted in German (*kartoffel*), Romanian (*cartof*), Russian (*kartófil*) and even Icelandic (*kartafla*).

Although the potato – called *patata* by modern Italians – was a staple food for generations of rural families, potato growing in Italy has been declining since the 1960s, when farmers produced 4 million tonnes from 380 000 ha of land. Large areas unsuitable for potato have since been abandoned, although per hectare yields have increased from 10 tonnes to around 25 tonnes.

Pasta-loving Italy has one of the lowest levels of potato consumption in Europe, less than 40 kg per capita annually. Even so, satisfying domestic demand required imports of more than one million tonnes of raw and processed potato in 2005.

*Harvest in Calabria,
Italy*



13. Denmark



Although the first potato tuber was planted in Denmark's Royal Botanical Garden in 1642, Danish farmers did not start growing it until almost a century later, around 1720. It is believed that farming of potatoes was introduced either from England and Ireland or by the Huguenots emigrating from France.

Potato production in Denmark totalled some 1.6 million tonnes in 2007, with yields of 39 tonnes per hectare. Little more than one third of total output is consumed directly as fresh potatoes. In fact, more than half of Denmark's potato harvest is processed into potato starch and flour, while nine percent is used as seed potatoes for replanting.

Each year, the average Dane consumes about 73 kg of potatoes. While per capita consumption is below that of other European countries, such as Ireland, potatoes are nevertheless an important part of the national diet. Potatoes are almost ubiquitous in Danish cooking, and an essential side dish to every hot meal. Denmark's legendary *akvavit* is distilled from potatoes.



A field of *práta*, Ireland

25. Ireland



No, Ireland is not a *very* big potato producer, but it deserves special recognition. The Irish were the first to give the tuber a truly warm welcome to Europe in the early 17th century, and the *práta* has been an intimate part of the country's history ever since.

It is also associated with a national tragedy. By the 19th century, potatoes supplied 80 percent of people's calorie intake and was a major source of livestock feed. But dependence on the potato proved a double-edged sword: in the 1840s, potato blight destroyed most of Ireland's potato crop, leading to a famine that caused the deaths of one million people and the emigration of millions more.

Today more potatoes are still eaten in Ireland than in most other countries of the world. In 2007, Ireland's 830 potato farmers produced an estimated 455 000 tonnes of potatoes, 85 percent being ware potatoes for consumption, and the rest seed potato for replanting.

