

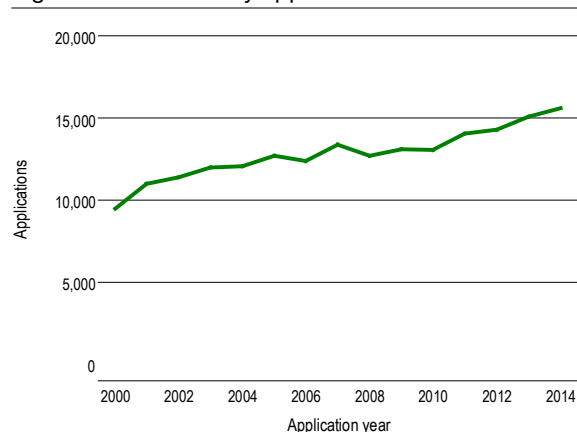
Plant Varieties

Highlights

Applications see steady growth

Around 15,600 plant variety applications were filed worldwide in 2014, up 3.3% from 2013. The Community Plant Variety Office (CPVO) of the European Union (EU), the offices of China and the Russian Federation accounted for the largest part of this increase.

Figure 20. Plant variety applications worldwide



Source: Standard figure D1.

Offices with the most plant variety filings

With 3,625 applications received in 2014, the CPVO remained the top filing office. China (2,026) overtook the US (1,567) and Ukraine (1,447) to take the second spot in the list.¹ Filings in the US and Ukraine dropped 17% and 6% respectively. Japan (1,018) completed the list of the top five offices. Among those top five, China (+34%) and the CPVO (+10%) recorded growth, while the other three saw declines. The US saw a sharp drop (-17%) in filings. The top five offices increased their combined share of applications worldwide from around 57% in 2004 to 62% in 2014.

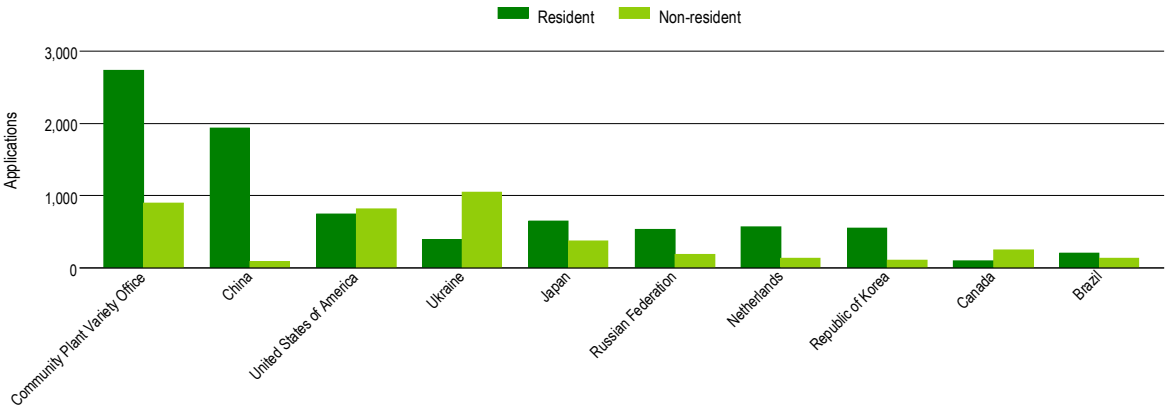
The growth in China was driven primarily by resident filings, whereas that at the CPVO was driven by non-resident filings. The declines in Ukraine and the US resulted from declines in both resident and non-resident filings. However, Japan saw non-resident filings increase despite a drop in its plant variety applications overall.

Seven of the top ten offices received more applications from residents than from non-residents. Among those offices, China's resident share (95.6%) was the highest. Ukraine, the US and Canada received higher shares of non-resident filings – 72.6%, 52.3% and 72.2% respectively.

Offices of high-income economies accounted for the largest proportion (58.4%) of plant variety applications received in 2014, down from 73.6% in 2004. Offices in the upper middle-income group saw their share increase from 21.3% in 2004 to 29.6% in 2014, mostly driven by the increase in filings in China. The share held by the lower middle-income group likewise increased, rising from 4.6% in 2004 to 11.5% in 2014 due to strong growth in Ukraine.

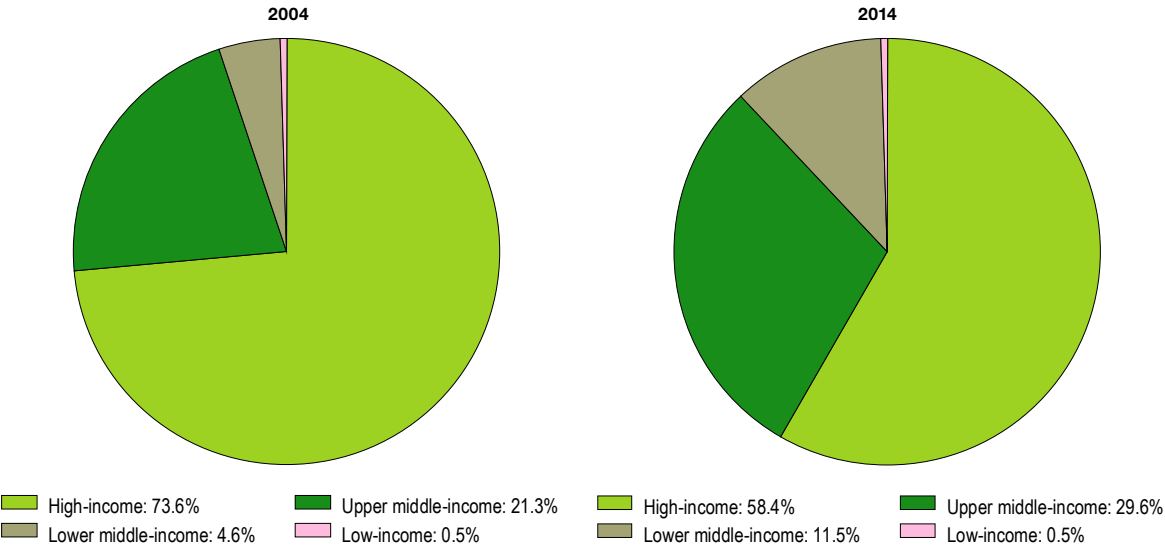
1. Throughout this section, the US data refer to Plant Variety Protection Act and Plant Patent Act data combined. However, separate data relating to each Act are given in statistical table D16.

Figure 21. Plant variety applications for the top 10 offices, 2014



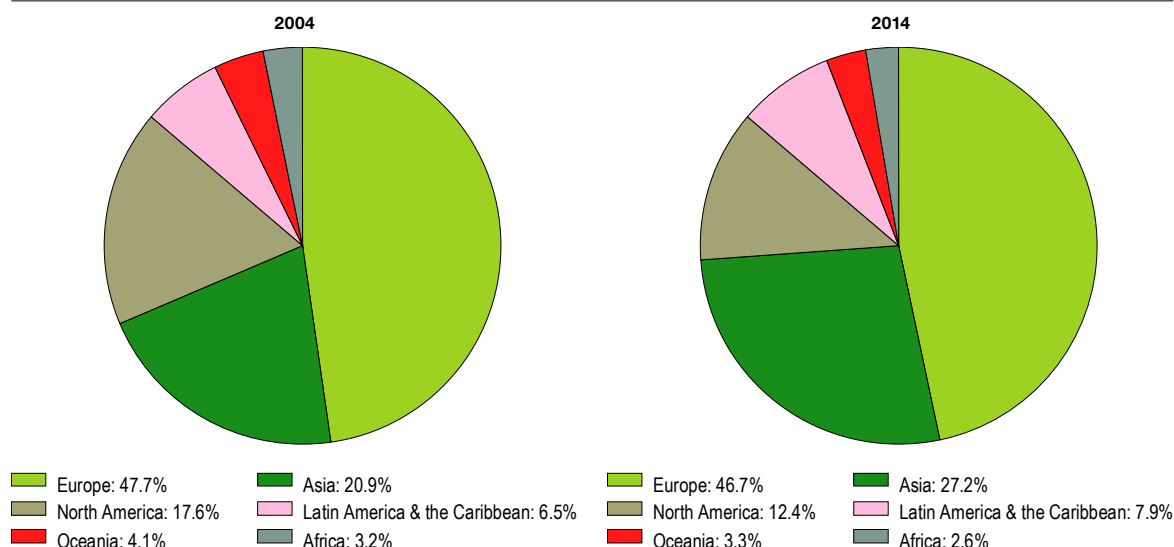
Source: Standard figure D5.

Figure 22. Plant variety applications by income group



Source: Standard table D3.

Figure 23. Plant variety applications by region



Source: Standard table D4.

Offices in Europe received 46.7% of all plant variety applications in 2014, largely unchanged from ten years ago (47.7%). Asia saw its share increase from 20.9% in 2004 to 27.2% in 2014 at the expense of a five-percentage point drop in North America. Shares for other regions were largely unchanged.

Applicants from the Netherlands top the origin list

Applicants may file both at their home office and at offices in other countries. For EU member states, filing at the CPVO regional office is also regarded as home filing. Combining statistics from all offices makes it possible to learn how many applications applicants from each country file, and where. Statistics by origin reveal how applicants from different countries file their plant variety applications.

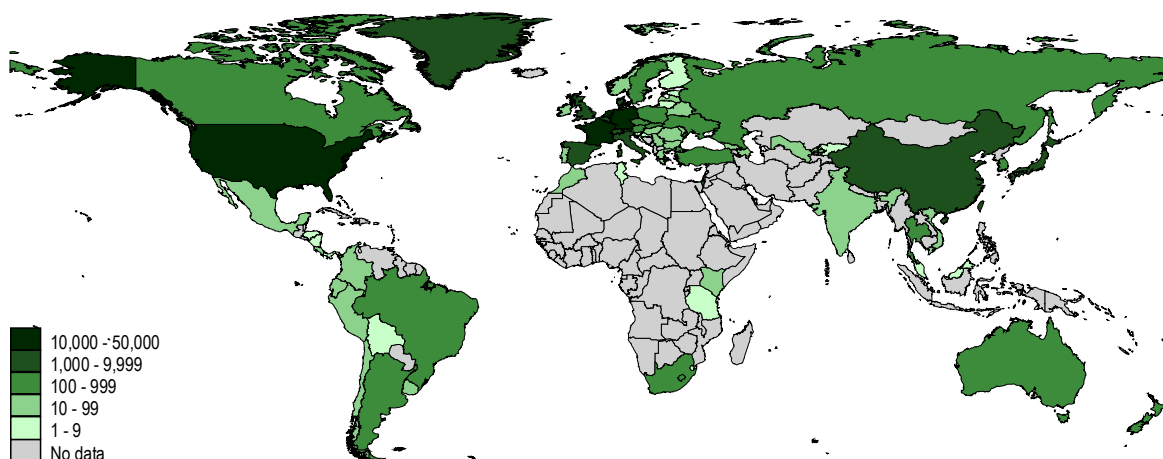
With 3,035 plant variety applications filed at various offices in 2014, applicants from the Netherlands remained the most active applicants in the world. They were followed by applicants from the US (2,113) and China (1,938), France (1,067) and Germany (990). However, while applicants from other countries among the top five origins filed most applications abroad or at the regional office, those from China filed almost exclusively at their home office. Similarly, applicants from the Republic of Korea, the Russian Federation and Ukraine also filed mostly at their home offices.

Equivalent count

Origin data are compiled using two different counting methods – absolute count and equivalent count. The difference between the two lies in the treatment of regional office (CPVO) data. For absolute count, an application received by the CPVO is counted only once. For the equivalent count, a single application filed at the CPVO is equivalent to multiple applications. To calculate the number of equivalent applications at the CPVO in 2014, each application was multiplied by the corresponding number of member states. If the applicant resided in one of the 28 EU member states in 2014, the application was counted as one resident filing and 27 filings abroad. If the applicant did not reside in an EU member state in 2014, the application was counted as 28 filings abroad.

Since the equivalent count takes multiple members at the regional office into account, one would expect to see those country origins whose applicants filed intensively at the CPVO move up the order when this counting method is used. Not surprisingly, then, European countries, the US and Japan topped the list of origins based on equivalent counts. Applicants from the Netherlands, with their 38,864 equivalent applications filed worldwide in 2014, remained number one. They were followed by applicants from the US (14,587), France (13,568), Germany (11,115) and Switzerland (6,041). Japan (2,682) is the only other non-European country among the top 10.

Map 4. Equivalent plant variety applications by origin, 2014



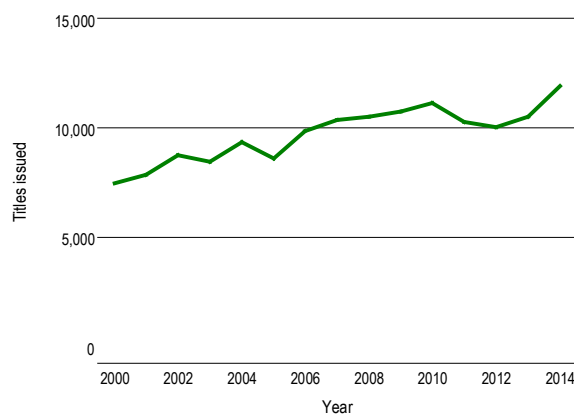
Source: Standard figure D9.

Large increase in titles issued

The total number of plant variety titles issued jumped by 13.3% in 2014, reaching 11,900. China and Ukraine accounted for 93% of total growth, but despite a slight drop the CPVO issued the largest number of titles (2,681). It was followed by the US (1,951), China (996) and Ukraine (883). The number of plant variety titles issued by the offices of China and Ukraine more than tripled. Other offices that saw marked increases in titles issued were the US (+22%), Canada (+21%) and Japan (+15%).

The granting or registration process takes time. Therefore, fluctuations in volumes of granted plant variety titles may reflect changes in processing capacities or procedural delays.

Figure 24. Plant variety titles issued worldwide



Source: Standard figure D2.

Plant varieties in force grew steadily

Around 106,800 plant variety titles were in force at the end of 2014, up 3.5% from 2013. The CPVO and the US were the top two offices for plant variety titles in force, each with around 22,500 titles. Other offices that maintained at least 4,000 active titles included Japan (8,274), the Netherlands (7,254), the Russian Federation (4,246) and China (4,020).

Standard figures and tables

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Plant varieties in force

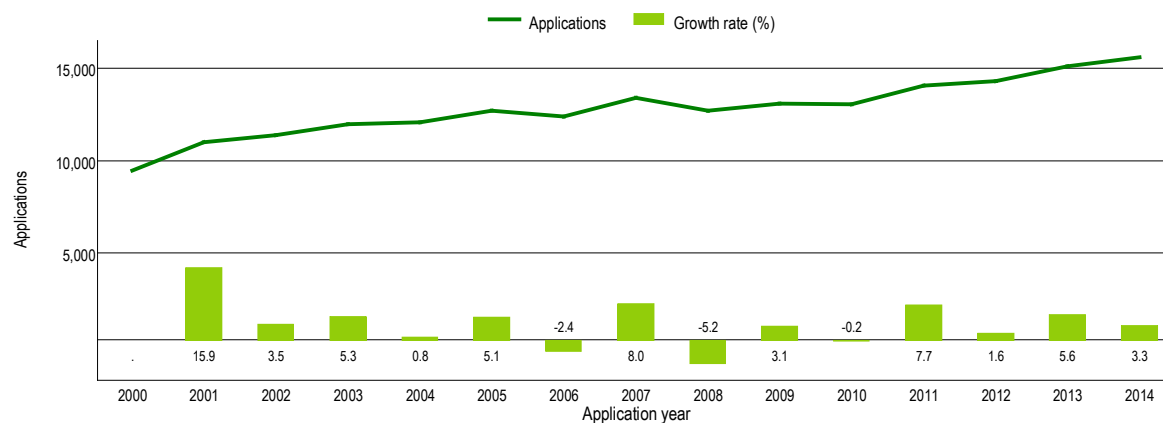
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Plant variety applications and titles issued worldwide

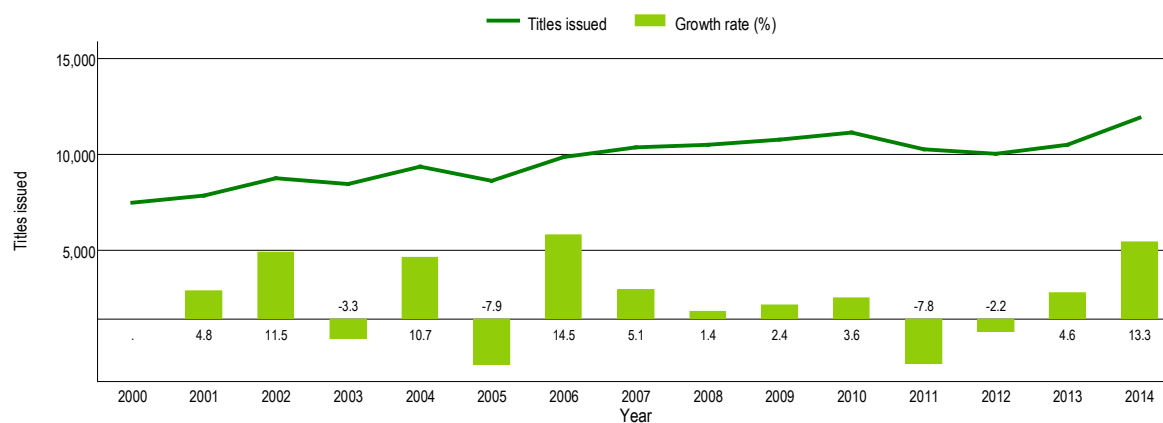
D1 Trend in plant variety applications worldwide



Note: WIPO estimates cover 67 offices.

Source: WIPO Statistics Database, October 2015.

D2 Trend in plant variety titles issued worldwide



Note: WIPO estimates cover 67 offices.

Source: WIPO Statistics Database, October 2015.

Plant variety applications and titles issued by office

D3 Plant variety applications by income group

	Number of applications		Resident share (%)		Share of world total (%)		Average growth (%)
	2004	2014	2004	2014	2004	2014	2004-14
High-income	8,880	9,110	61.8	66.0	73.6	58.4	0.3
Upper middle-income	2,570	4,610	67.2	69.6	21.3	29.6	6.0
Lower middle-income	560	1,800	77.9	32.4	4.6	11.5	12.4
Low-income	60	80	28.6	12.9	0.5	0.5	2.9
World	12,070	15,600	63.5	63.0	100	100	2.6

Note: WIPO estimates cover 67 offices: 31 of them are located in high-income countries; 25 in upper middle-income countries; 9 in lower middle-income countries; and 2 in low-income countries. The EU's Community Plant Variety Office data are allocated to the high-income group because the majority of its member states are high-income countries.

Source: WIPO Statistics Database, October 2015.

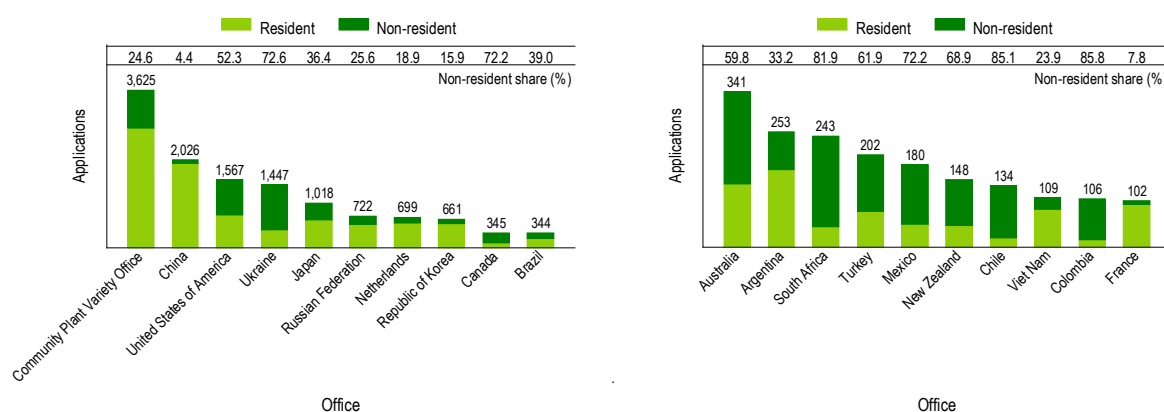
D4 Plant variety applications by region

	Number of applications		Resident share (%)		Share of world total (%)		Average growth (%)
	2004	2014	2004	2014	2004	2014	2004-14
Africa	390	410	27.9	16.7	3.2	2.6	0.5
Asia	2,520	4,240	79.0	80.5	20.9	27.2	5.3
Europe	5,760	7,280	74.9	65.5	47.7	46.7	2.4
Latin America & the Caribbean	780	1,230	37.0	42.2	6.5	7.9	4.7
North America	2,130	1,930	36.6	44.1	17.6	12.4	-1.0
Oceania	490	510	39.1	37.4	4.1	3.3	0.4
World	12,070	15,600	63.5	63.0	100	100	2.6

Note: WIPO estimates cover data for 67 offices. Each region includes the following number of offices: Africa (4), Asia (12), Europe (33), Latin America & the Caribbean (14), North America (2) and Oceania (2).

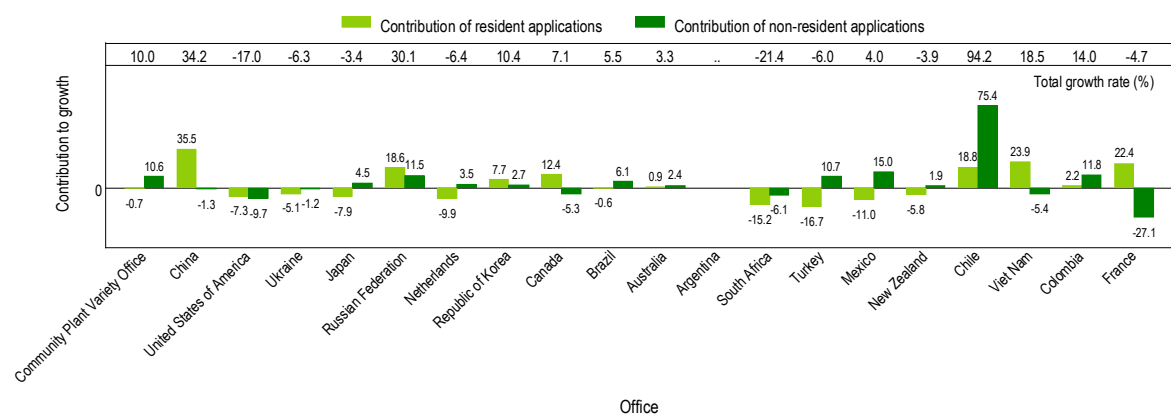
Source: WIPO Statistics Database, October 2015.

D5 Plant variety applications for the top 20 offices, 2014



Source: WIPO Statistics Database, October 2015.

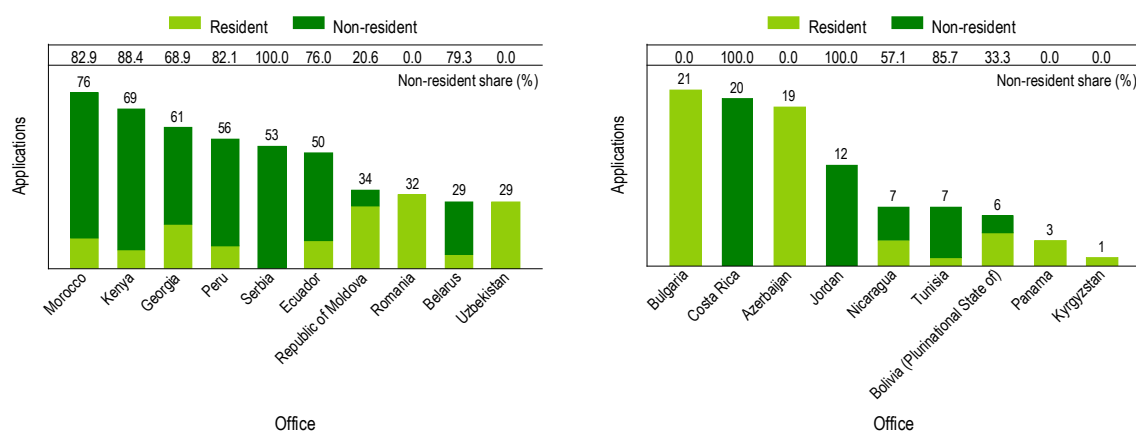
D6 Contribution of resident and non-resident applications to total growth for the top 20 offices, 2013-14



.. indicates not available.

Source: WIPO Statistics Database, October 2015.

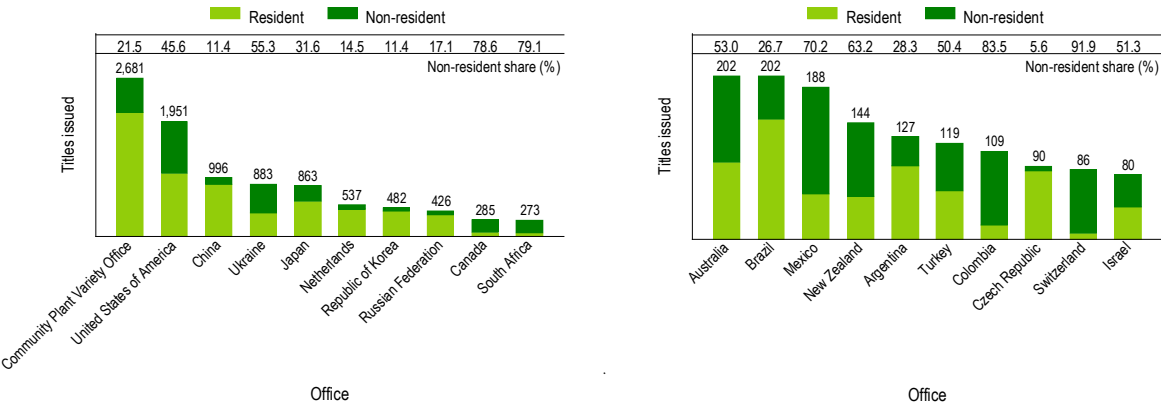
D7 Plant variety applications for offices of selected low- and middle-income countries, 2014



Note: The selected offices are from different world regions and income groups. Where available, data for all offices are in the statistical table at the end of this section.

Source: WIPO Statistics Database, October 2015.

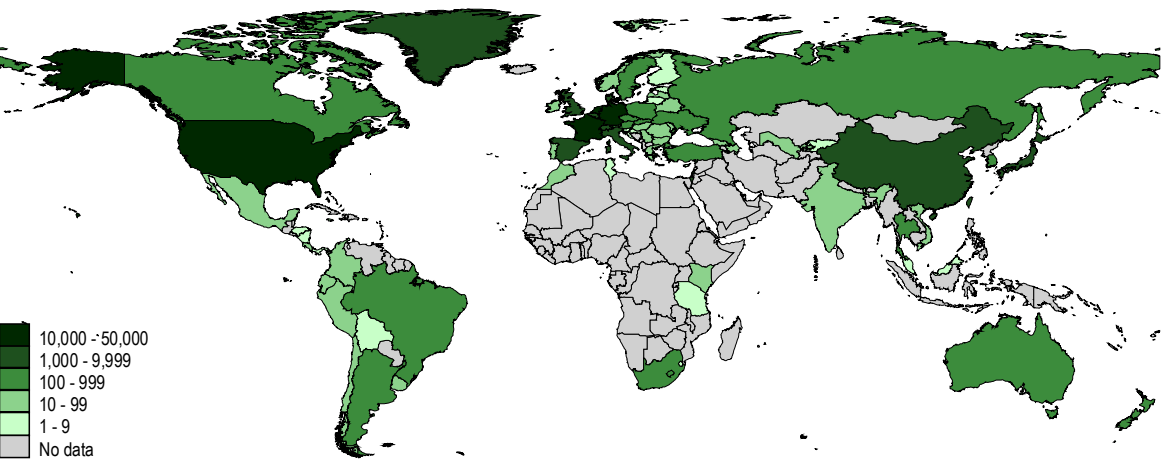
D8 Plant variety titles issued for the top 20 offices, 2014



Source: WIPO Statistics Database, October 2015.

Plant variety applications and titles issued by origin

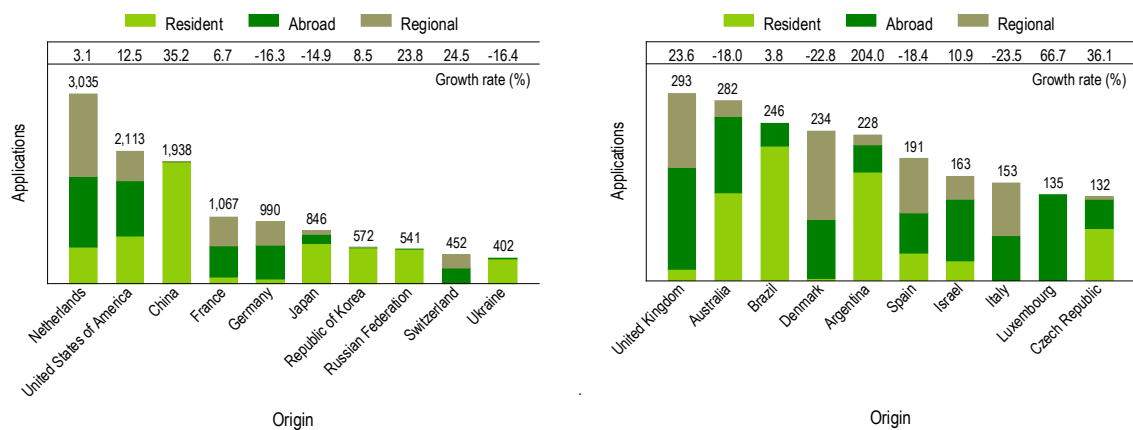
D9 Equivalent plant variety applications by origin, 2014



Note: The origin of an application is determined by the residence of the applicant. See the glossary for the definition of equivalent application.

Source: WIPO Statistics Database, October 2015.

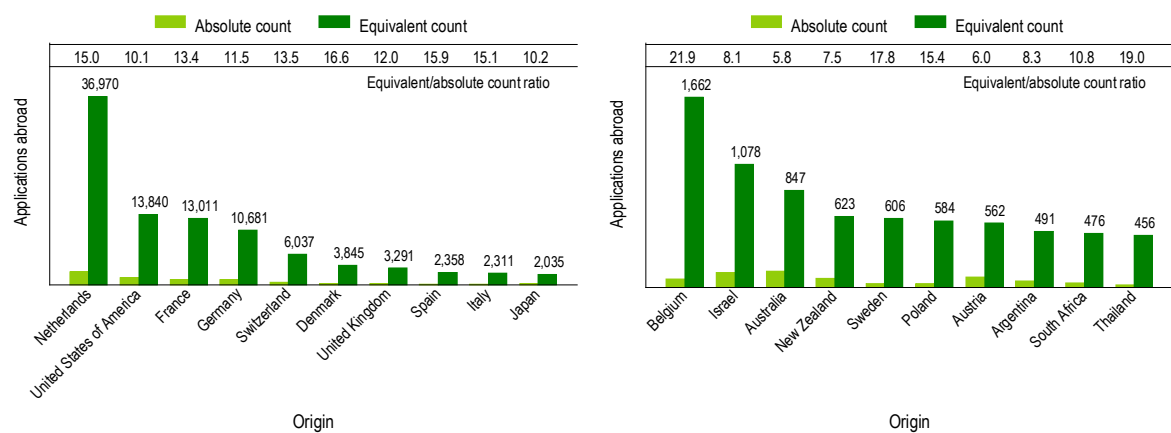
D10 Plant variety applications for the top 20 origins, 2014



Note: Data are based on absolute count, not equivalent count. The origin of an application is determined by the residence of the applicant. Regional refers to applications filed at the EU's Community Plant Variety Office.

Source: WIPO Statistics Database, October 2015.

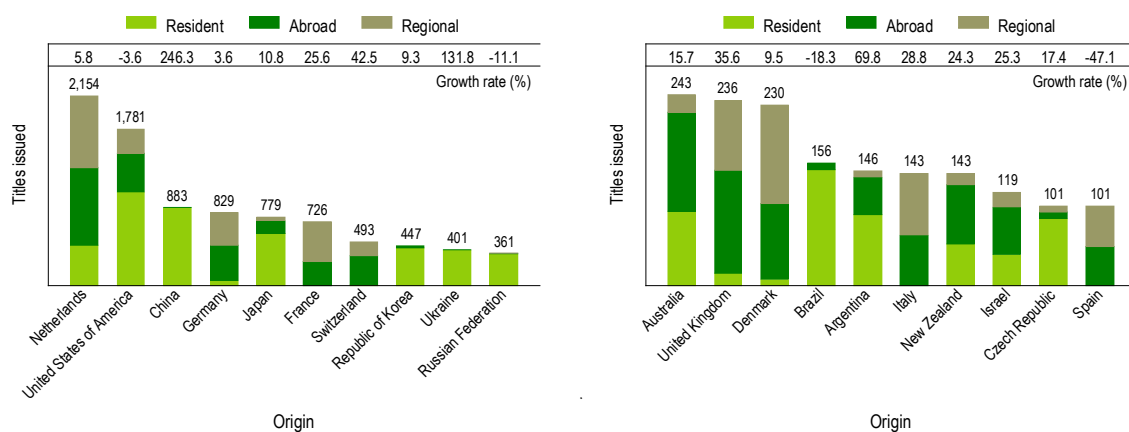
D11 Plant variety applications abroad for the top 20 origins, 2014



Note: The origin of an application is determined by the residence of the applicant. See the glossary for the definition of equivalent application.

Source: WIPO Statistics Database, October 2015.

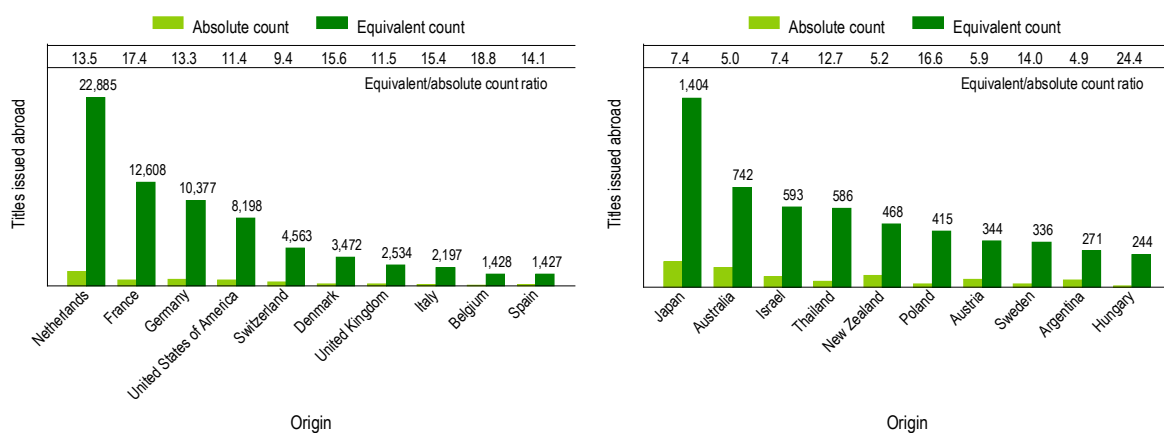
D12 Plant variety titles issued for the top 20 origins, 2014



Note: Data are based on absolute count, not equivalent count. The origin of an application is determined by the residence of the applicant.

Source: WIPO Statistics Database, October 2015.

D13 Plant variety titles issued abroad for the top 20 origins, 2014

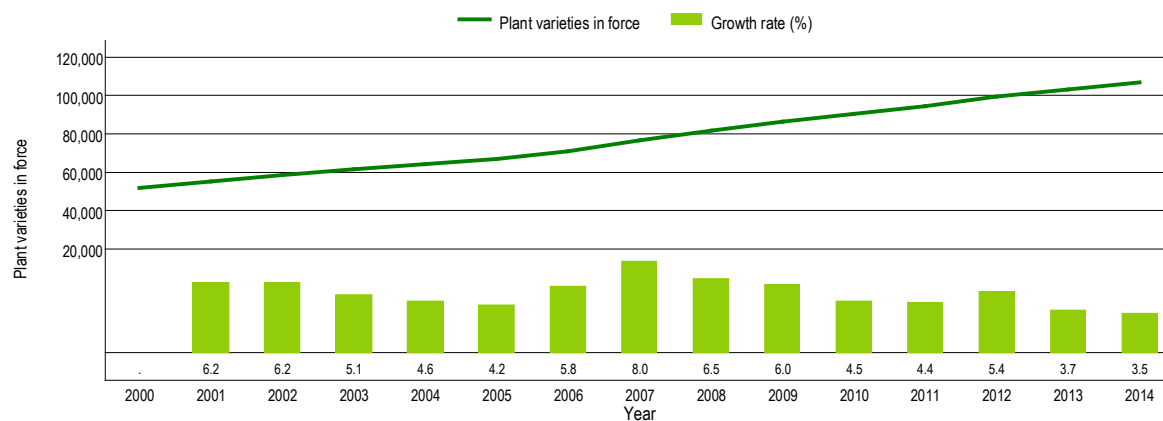


Note: See the glossary for the definition of equivalent grant (registration).

Source: WIPO Statistics Database, October 2015.

Plant varieties in force

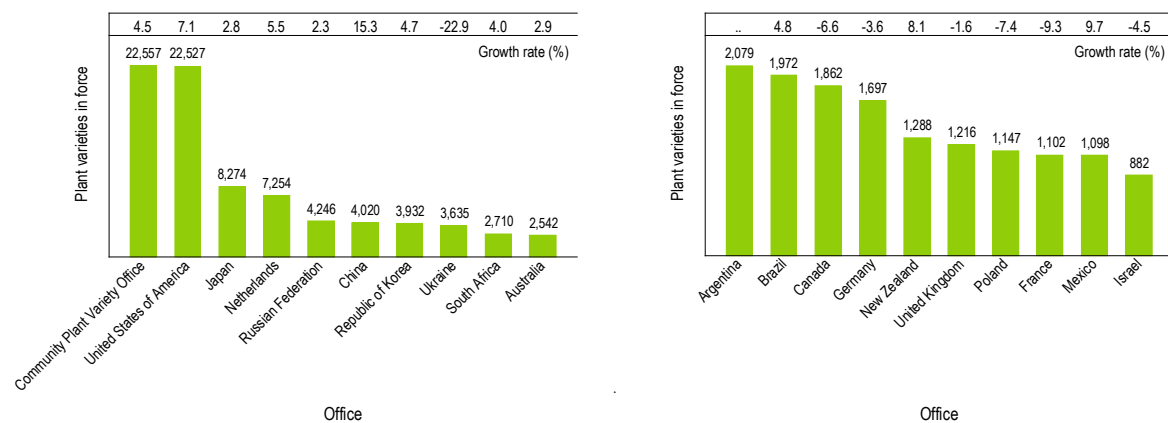
D14 Trend in plant varieties in force worldwide



Note: WIPO estimates cover 66 offices.

Source: WIPO Statistics Database, October 2015.

D15 Plant varieties in force at selected offices, 2014



.. indicates not available.

Source: WIPO Statistics Database, October 2015.

Statistical table

D16 Plant variety applications and titles issued by office and origin, 2014

Name	Applications by office		Applications by origin		Equivalent applications by origin	Grants by office		Plant varieties in force	
	Total	Resident	Non-resident	Total	Total	Total	Resident	Non-resident	Office
African Intellectual Property Organization	..	..	..	..	..	..	..	..	12
Argentina	253	169	84	228	660	127	91	36	2,079
Australia	341	137	204	282	984	202	95	107	2,542
Austria (a)	..	..	..	94	580	2	2	0	37
Azerbaijan	19	19	0	19	19	19	19	0	179
Belarus	29	6	23	13	40	46	21	25	270
Belgium	3	3	0	79	1,726	3	1	2	84
Bolivia (Plurinational State of)	6	4	2	4	4	6	4	2	49
Brazil	344	210	134	246	246	202	148	54	1,972
Bulgaria	21	21	0	24	24	19	19	0	388
Canada	345	96	249	129	264	285	61	224	1,862
Chile	134	20	114	28	55	60	5	55	..
China	2,026	1,936	90	1,938	1,965	996	882	114	4,020
Colombia	106	15	91	18	18	109	18	91	597
Community Plant Variety Office	3,625	2,732	893	n.a.	..	2,681	2,105	576	22,557
Costa Rica	20	0	20	19	46	1	1	0	8
Croatia	3	3	0	3	3	8	8	0	41
Cyprus (b)	..	..	..	1	1	..	..	..	..
Czech Republic	99	82	17	132	240	90	85	5	761
Denmark	16	3	13	234	3,987	9	8	1	146
Ecuador	50	12	38	12	12	38	2	36	344
Estonia	7	1	6	1	1	8	1	7	82
Finland	6	6	0	6	6	10	7	3	180
France	102	94	8	1,067	13,568	..	..	..	1,102
Georgia	61	19	42	19	19	61	16	45	137
Germany	69	59	10	990	11,115	56	46	10	1,697
Greece (b)	..	..	..	2	56	..	..	..	..
Honduras (b)	..	..	..	2	2	..	..	..	..
Hungary	30	30	0	39	39	19	18	1	97
India (b)	..	..	..	4	85	..	..	..	..
Ireland	2	1	1	15	96	3	3	0	65
Israel	79	30	49	163	1,108	80	39	41	882
Italy (a)	..	..	..	153	2,394	..	..	..	..
Jamaica (b)	..	..	..	2	29	..	..	..	..
Japan	1,018	647	371	846	2,682	863	590	273	8,274
Jordan	12	0	12	..	..	7	0	7	41
Kenya	69	8	61	10	10	24	0	24	330
Kyrgyzstan	1	1	0	1	1	..	..	..	6
Latvia	6	6	0	10	37	6	6	0	220
Lithuania	7	3	4	3	3	6	2	4	59
Luxembourg (b)	..	..	..	135	135	..	..	..	..
Malaysia (b)	..	..	..	1	1	..	..	..	..
Mauritius (b)	..	..	..	5	5	..	..	..	..
Mexico	180	50	130	51	51	188	56	132	1,098
Morocco	76	13	63	13	13	27	1	26	239
Netherlands	699	567	132	3,035	38,864	537	459	78	7,254
New Zealand	148	46	102	129	669	144	53	91	1,288
Nicaragua	7	3	4	3	3	4	0	4	10
Norway	18	9	9	10	10	26	6	20	253
Panama	3	3	0	3	3	..	..	..	16
Peru	56	10	46	10	10	22	5	17	75
Poland	75	66	9	104	671	57	46	11	1,147
Portugal (a)	..	..	..	2	56	1	1	0	10
Republic of Korea	661	556	105	572	626	482	427	55	3,932

STANDARD FIGURES AND TABLES

Name	Applications by office		Applications by origin		Equivalent applications by origin	Grants by office		Plant varieties in force	
	Total	Resident	Non-resident	Total	Total	Total	Resident	Non-resident	Office
Republic of Moldova	34	27	7	33	33	29	26	3	131
Romania	32	32	0	40	40	41	41	0	323
Russian Federation	722	537	185	541	541	426	353	73	4,246
Serbia	53	0	53	49	49	51	6	45	164
Singapore	6	3	3	3	3	..	..	..	..
Slovakia	16	11	5	22	292	23	23	0	409
Slovenia	3	3	0	3	3	..	..	..	11
South Africa	243	44	199	88	520	273	57	216	2,710
Spain	54	43	11	191	2,486	..	..	..	325
Swaziland (b)	..	..	..	2	2	..	..	..	..
Sweden (a)	..	..	..	34	628	3	2	1	..
Switzerland	53	4	49	452	6,041	86	7	79	793
Thailand (b)	..	..	..	24	456	..	..	..	..
Tunisia	7	1	6	1	1	6	1	5	114
Turkey	202	77	125	102	129	119	59	60	524
Ukraine	1,447	396	1,051	402	402	883	395	488	3,635
United Kingdom	36	18	18	293	3,425	26	16	10	1,216
United Republic of Tanzania (b)	..	..	..	1	1	..	..	..	..
United States of America (PPA) (c)	1,063	378	685	n.a.	..	1,072	401	671	15,693
United States of America (PVPA)	504	369	135	2,113	14,587	879	661	218	6,834
Uruguay	49	14	35	20	20	39	13	26	550
Uzbekistan	29	29	0	29	29	2	2	0	60
Viet Nam	109	83	26	83	83	38	25	13	208
Others/Unknown	..	..	..	59	356	..	..	..	..
Total (2014 estimates)	15,600	9,800	5,800	15,600	n.a.	11,900	7,500	4,400	106,800

a. The office did not report data, so applications by origin data may be incomplete.

b. Not a member of the International Union for the Protection of New Varieties of Plants.

c. Applications by origin are reported under United States of America (PVPA), because statistics by origin do not distinguish between applications under the Plant Variety Protection Act (PVPA) and those under the Plant Patent Act (PPA).

n.a. indicates not applicable.

.. indicates not available.

Source: WIPO Statistics Database, October 2015.