



**Kleffmann Group Ukraine**

February 2018

# Overview of Ukrainian potatoes market

## 1. KLEFFMANN GROUP – INTRODUCTION

Kleffmann Group global approach | Kleffmann Group Ukraine

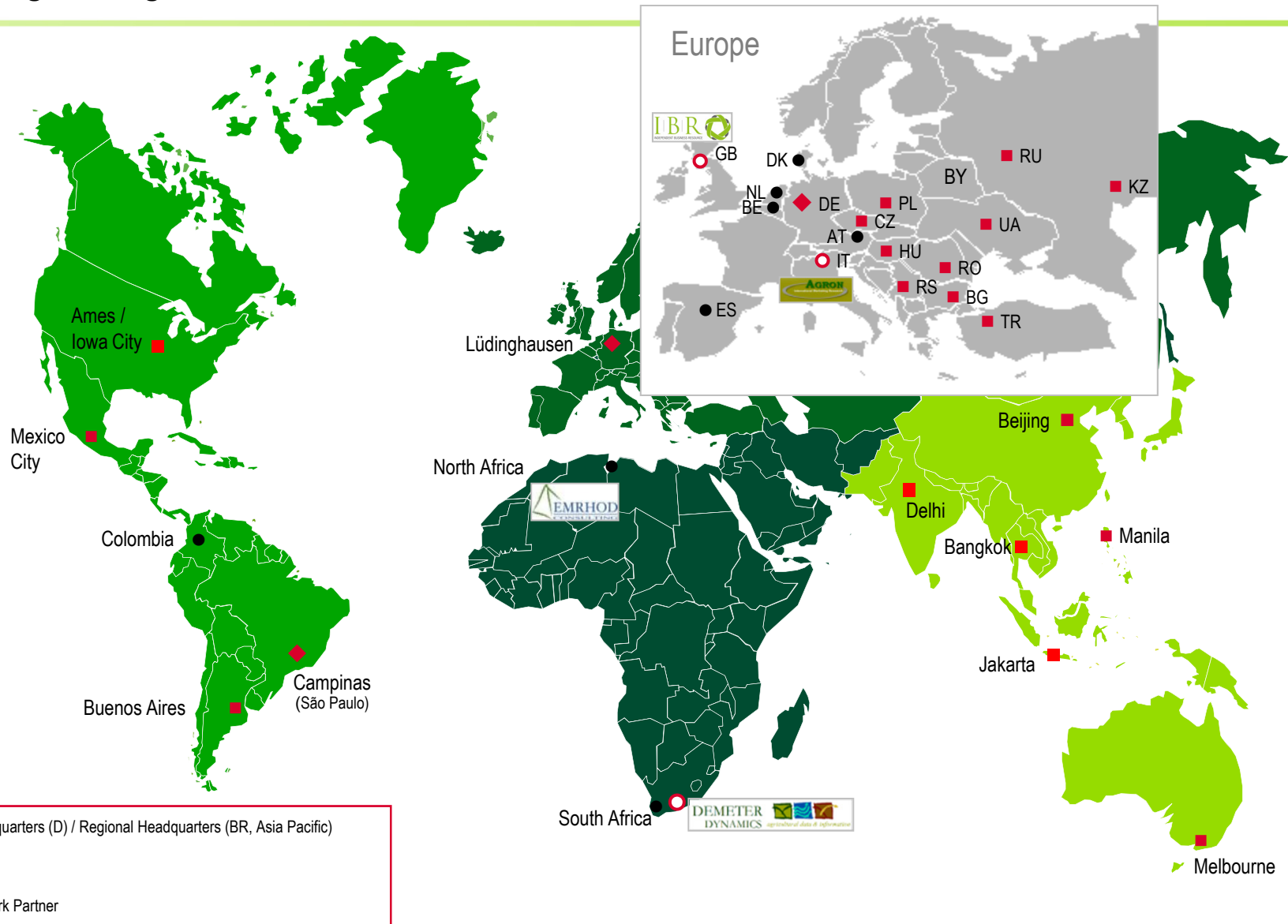
## 2. POTATOES IN UKRAINE

Area | Utilization | Varieties | Costs



# Kleffmann Global Network

## 25 years of global agricultural studies



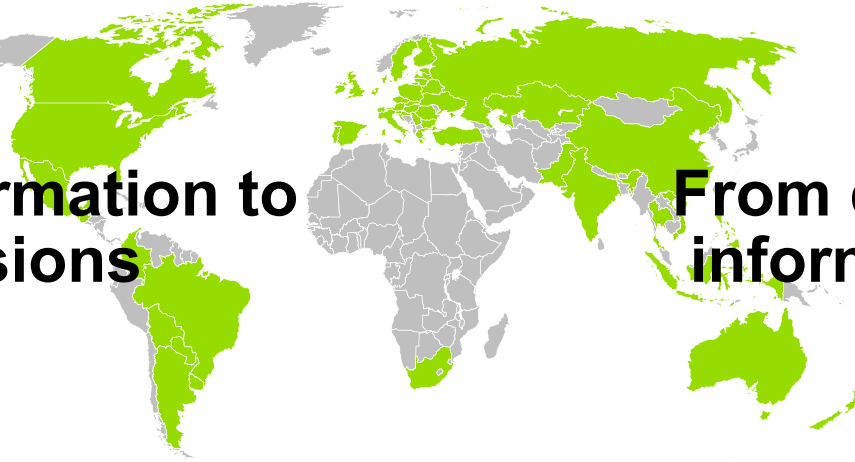
# AMIS – agricultural marketing informational system

Information from fields



# Kleffmann's studies

27 years – 70 countries – 5 continents



**From information to decisions**

**From data to information**



## 1. KLEFFMANN GROUP – INTRODUCTION

Kleffmann Group global approach | Kleffmann Group Ukraine

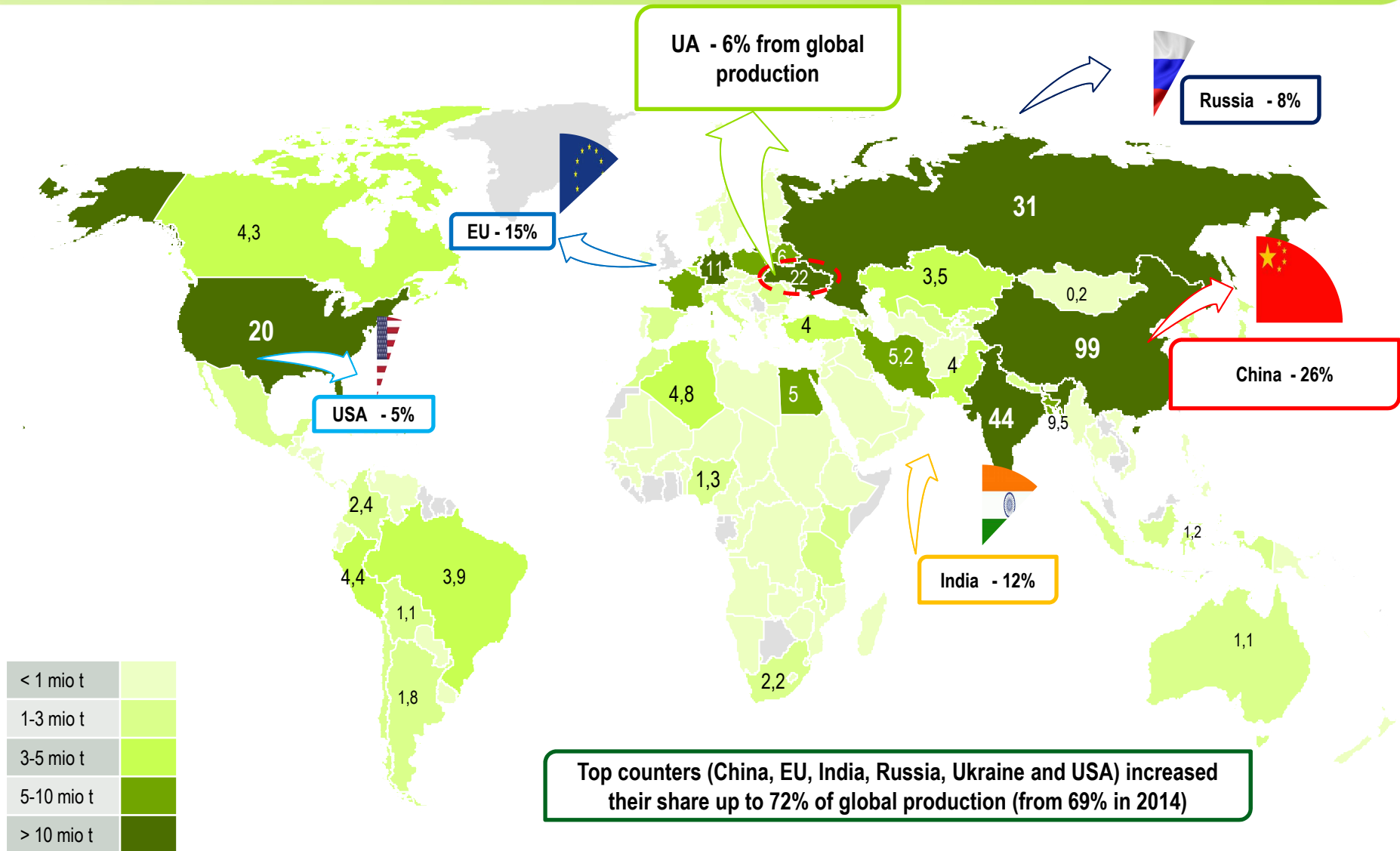
## 2. POTATOES IN UKRAINE

Area | Utilization | Varieties | Costs



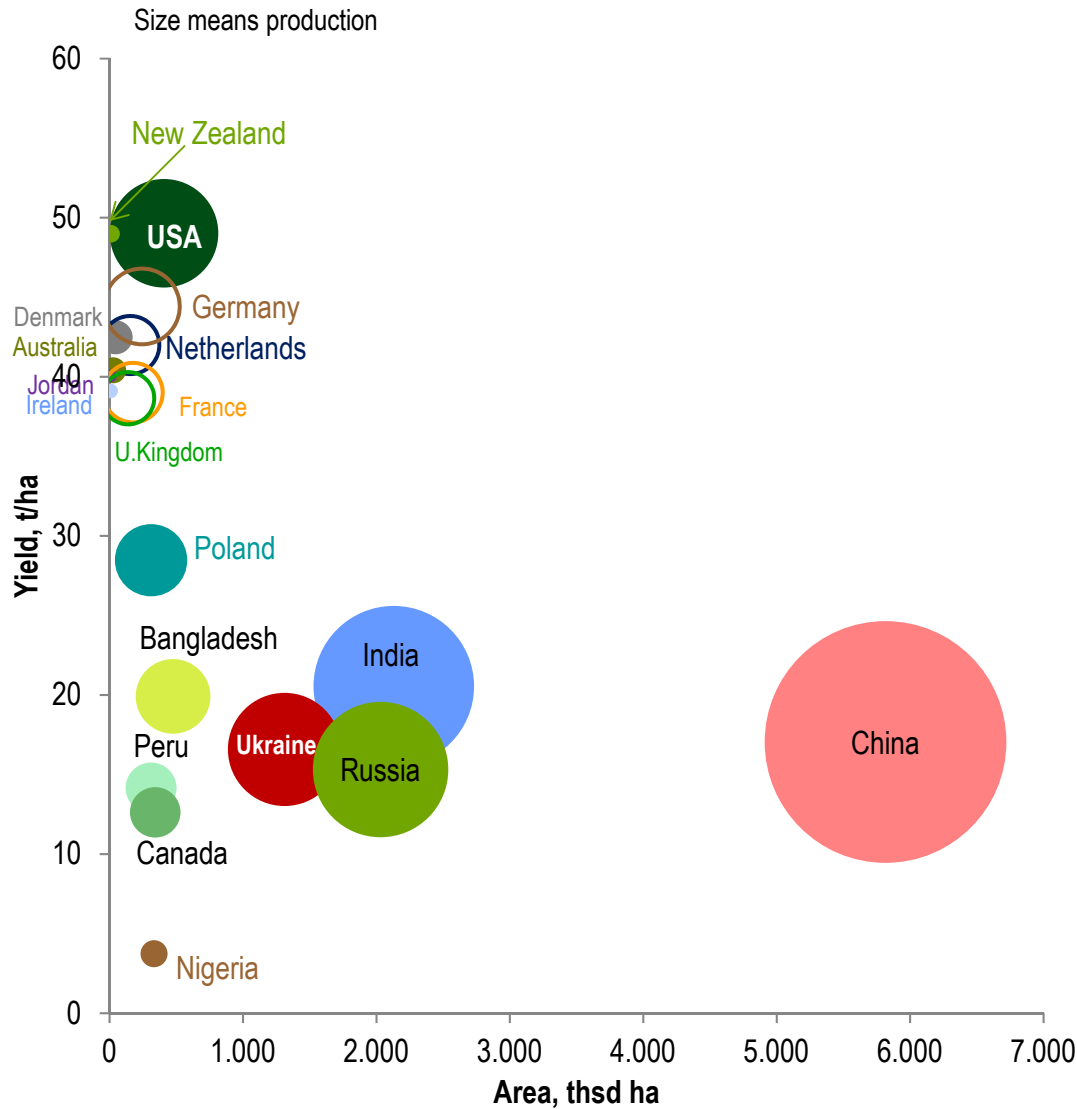
# International potatoes production in 2016 - 376 Mt (-2% according to 2014)

Countries comparisons



# Relative positions by area, production & yield

Ukraine produces potatoes as much as USA, but on area in three times larger



Ranked by Production	Area in 2016, ths ha	Yield, t/ha	Production, mio t
China	5815,1	17,0	99,1
India	2130,0	20,5	43,8
Russia	2030,9	15,3	31,1
<b>Ukraine</b>	1311,6	16,6	21,8
<b>USA</b>	407,8	49,0	20,0
Germany	242,5	44,4	10,8
Bangladesh	475,7	19,9	9,5
Poland	311,6	28,5	8,9
France	175,2	39,0	6,8
Netherlands	155,6	42,0	6,5
U.Kingdom	139,0	38,7	5,4
Peru	310,7	14,2	4,4
Canada	342,4	12,6	4,3
Denmark	46,0	42,5	2,0
Nigeria	333,1	3,7	1,2
Australia	28,0	40,4	1,1
New Zealand	10,8	49,0	0,5
Ireland	9,0	39,1	0,4
Jordan	6,8	40,1	0,3

1 rank (top 1)
2-3 ranks
4-5 rank
6-10 ranks
Ranks below 10

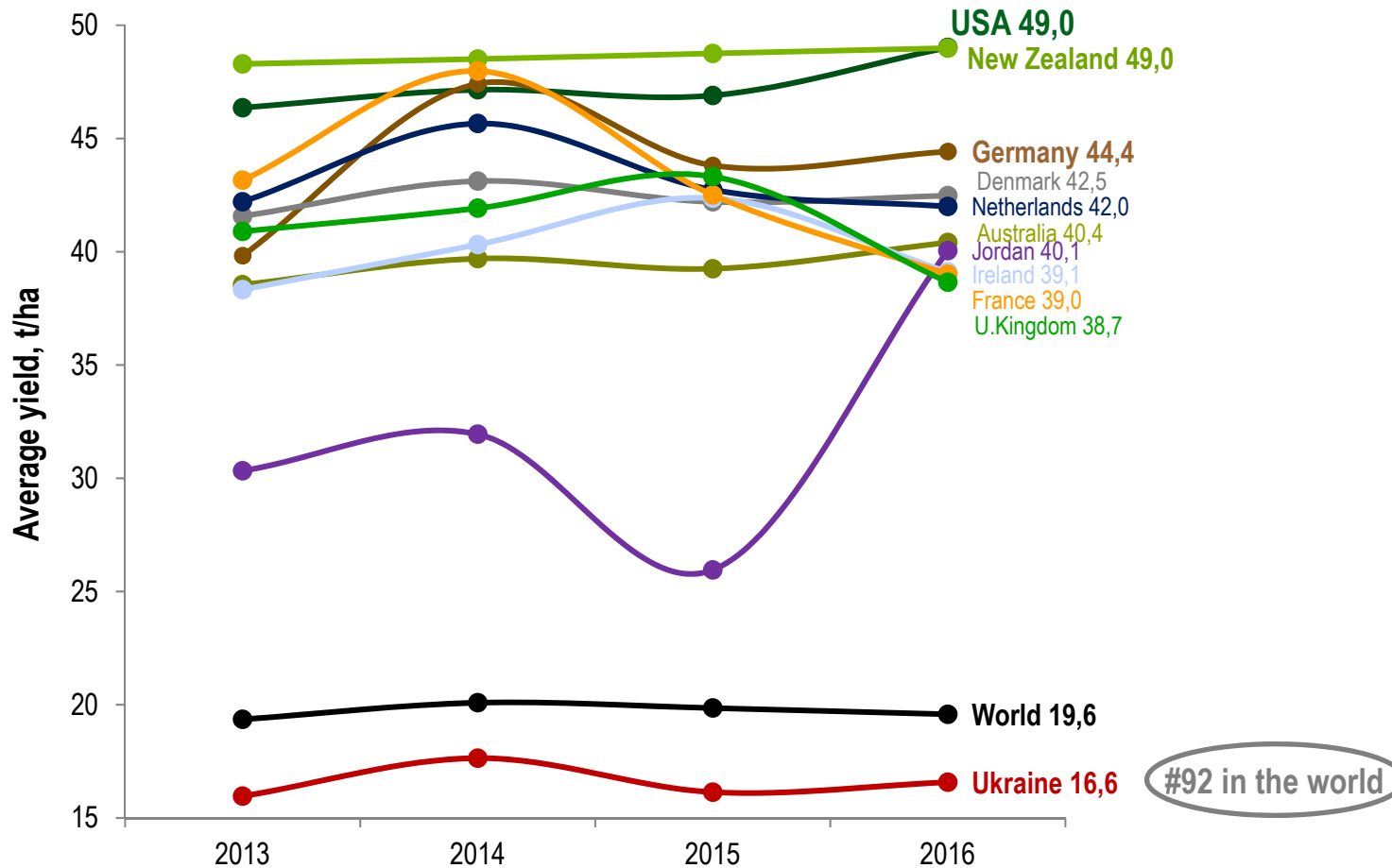
Source: FAO, 2016, latest available data

# Potatoes yield

Countries comparisons and trend

**USA and New Zealand** are leading by potatoes yield with 49 t/ha in 2016.  
**Germany, France & Netherlands** decreased potatoes yield since 2014.  
**Ukraine** is on the 92th position in the world by yield with no significant changes.

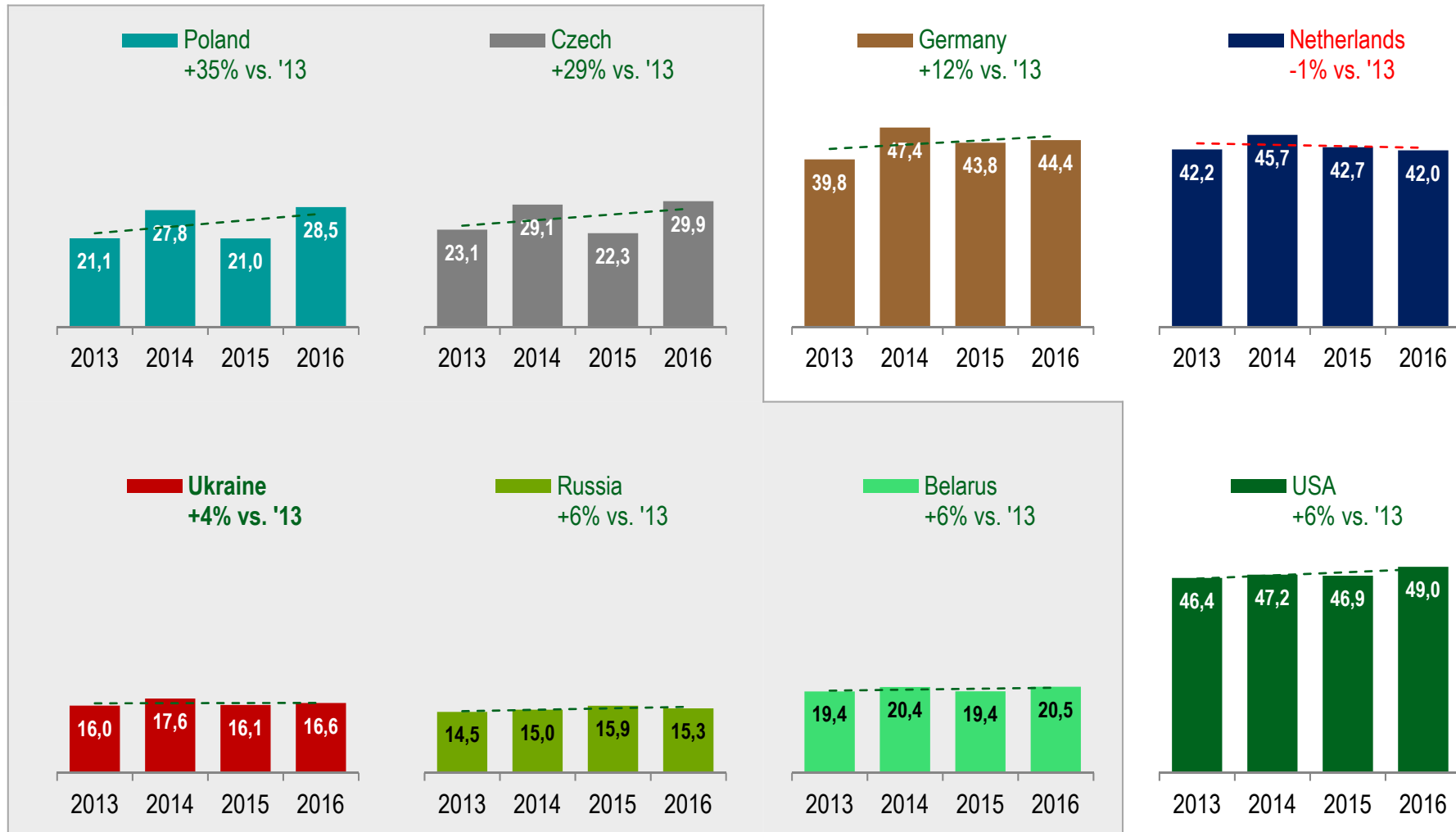
Top 10 countries by yield, t/ha



Source: FAO

## Yield increase vs. 2013

In the Eastern Europe region Poland and Czech significantly improved its yield score vs. 2013, while Ukraine, Russia and Belarus do not show such changes



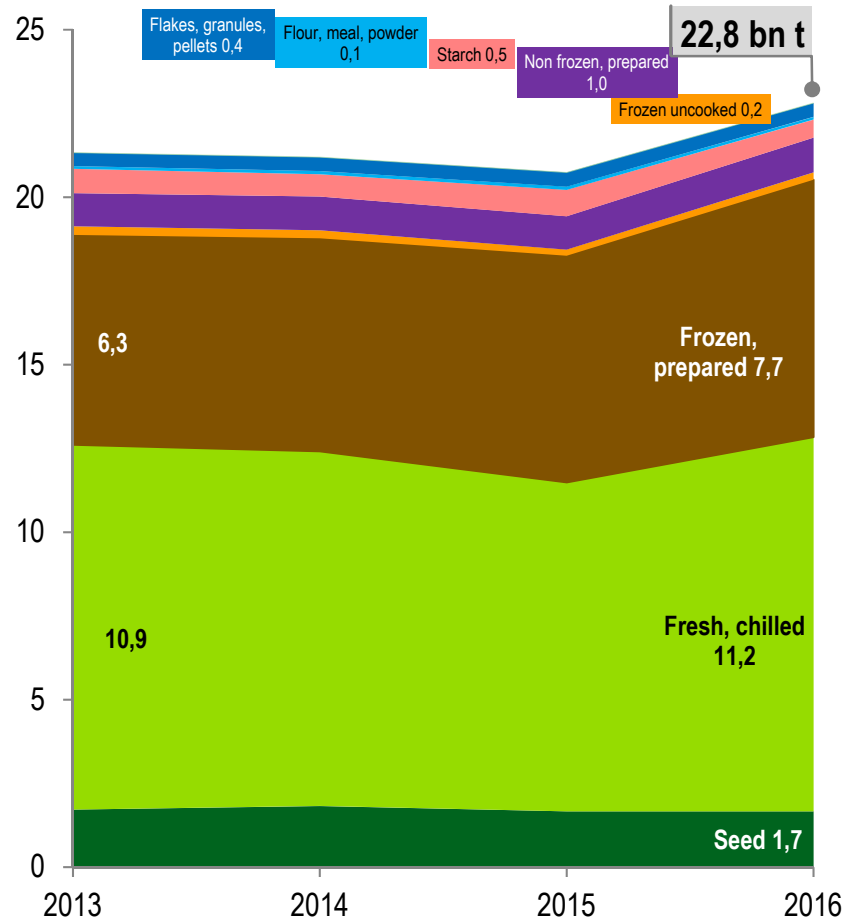
Source: FAO, latest available data

# World export of potatoes by categories

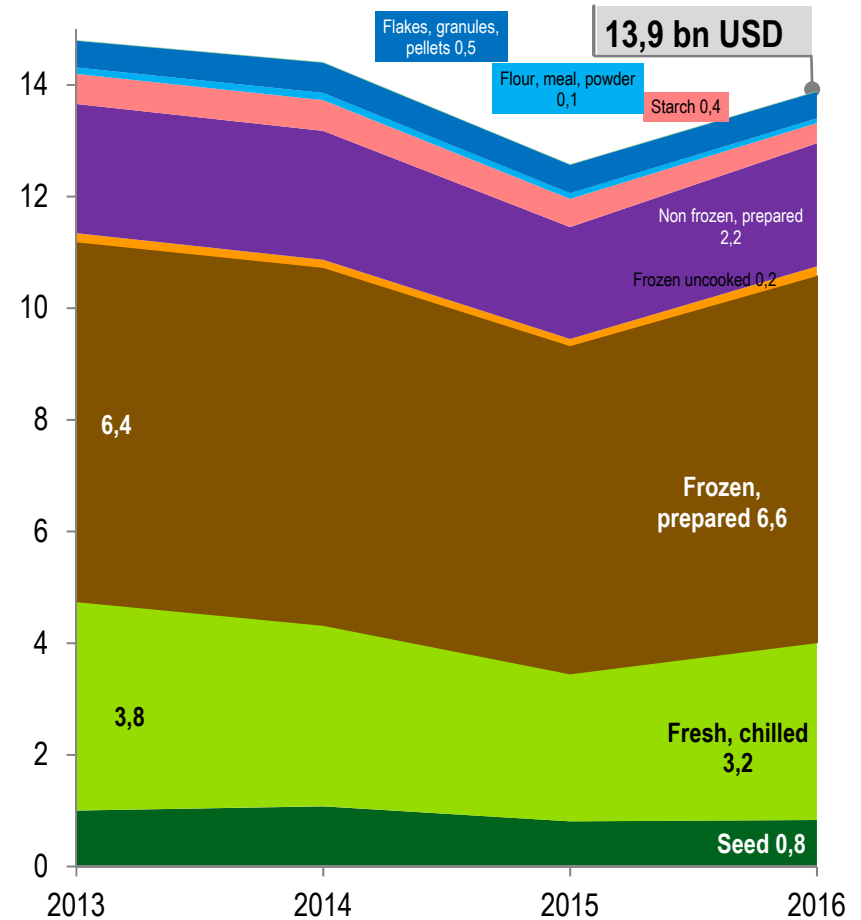
Fresh and frozen (e.g. French fries) potato dominate the world export of potatoes



Potato categories by export volume, bn t



Potato categories by export value, bn USD



Source: ITC calculations based on UN COMTRADE and ITC statistics, [www.trademap.org](http://www.trademap.org), latest available data

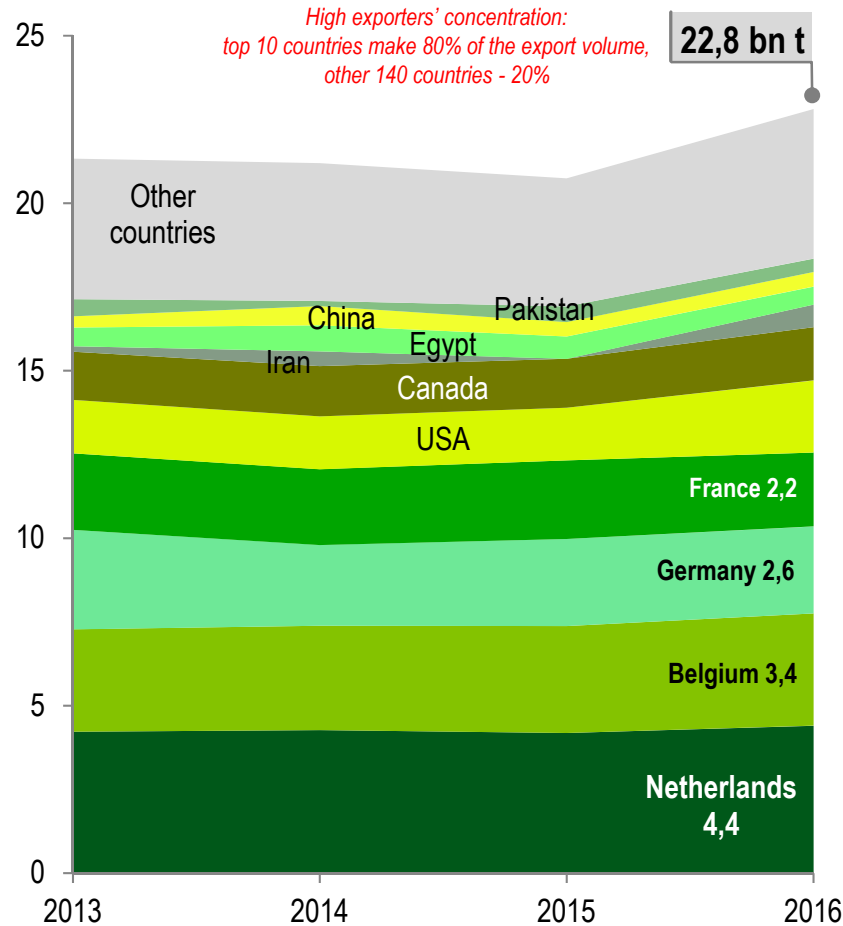
# World export of potatoes by countries

Netherlands and Belgium are key players in the potatoes the in the world both in volume and value

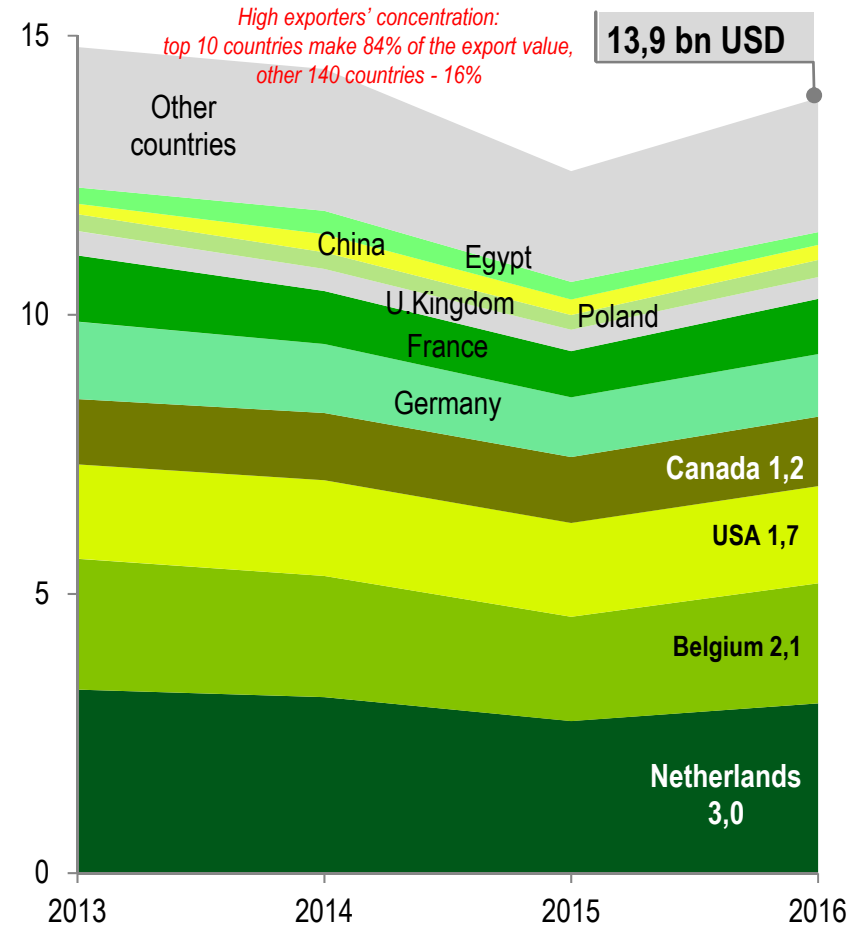


All kinds of potato and its products

### Top 10 by export volume, bn t



### Top 10 by export value, bn USD



Source: ITC calculations based on UN COMTRADE and ITC statistics, [www.trademap.org](http://www.trademap.org), latest available data

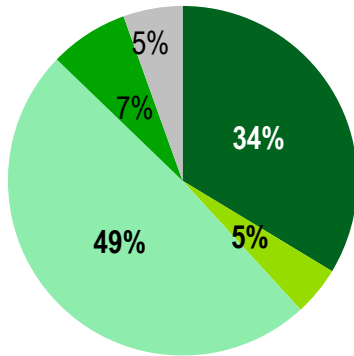
# Structure of the world export, 2016

Netherlands and Belgium dominate the potatoes export by supplying to other countries frozen potatoes (e.g. French fries). Netherlands is also a key supplier of the seed potatoes

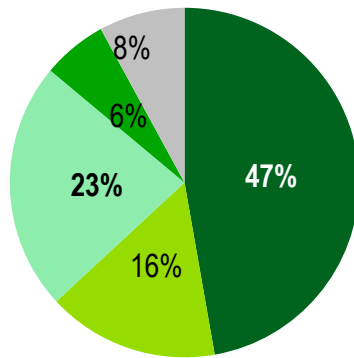


## World

% in volume in the world's export

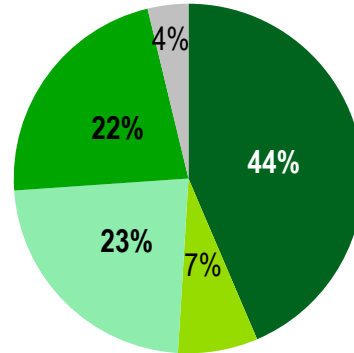


% in value in the world's export

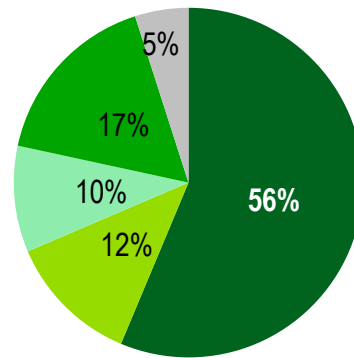


## Netherlands

% in volume of the country's export

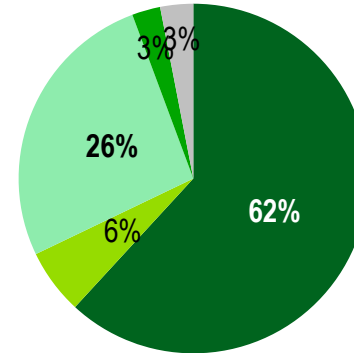


% in value of the country's export

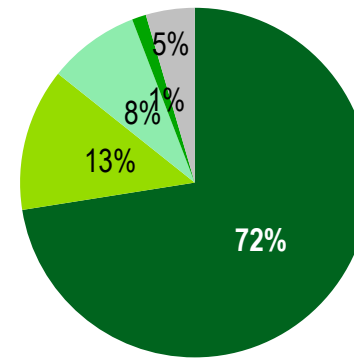


## Belgium

% in volume of the country's export



% in value of the country's export



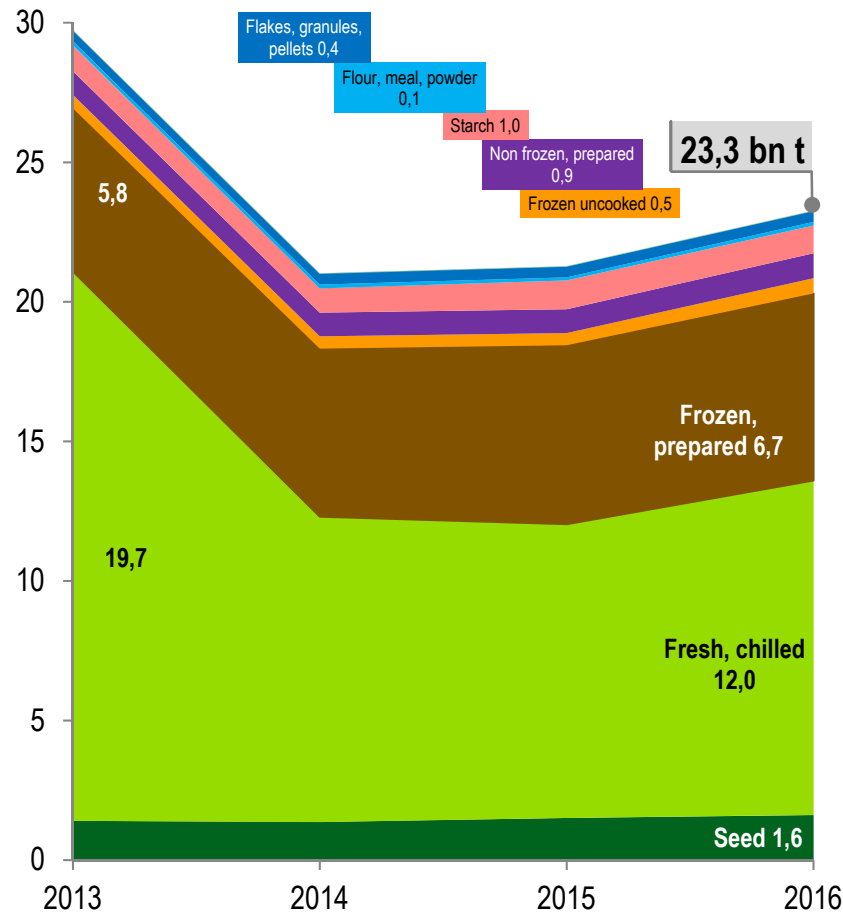
- Frozen, prepared (e.g. French fries)
- Non frozen, prepared (Chips etc.)
- Fresh, chilled
- Seed
- Other

# World import of potatoes by categories

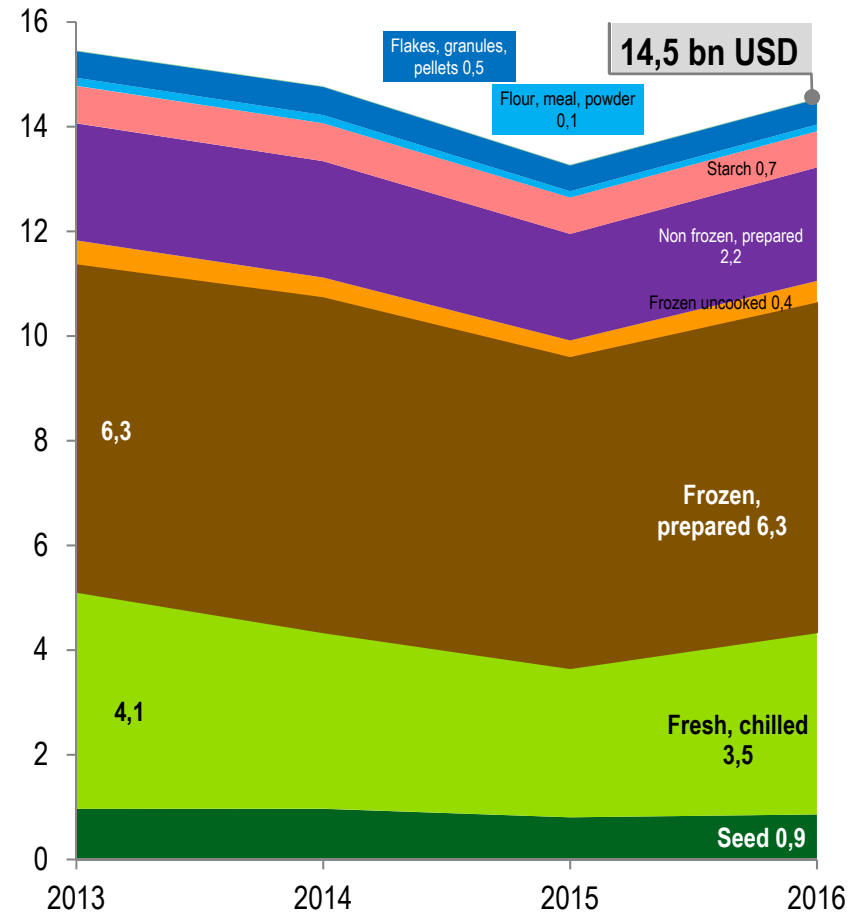
Import of the fresh potatoes has significantly decreased in recent years, while frozen prepared potatoes - increased



Potato categories by import volume, bn t



Potato categories by import value, bn USD



Source: ITC calculations based on UN COMTRADE and ITC statistics, [www.trademap.org](http://www.trademap.org), latest available data

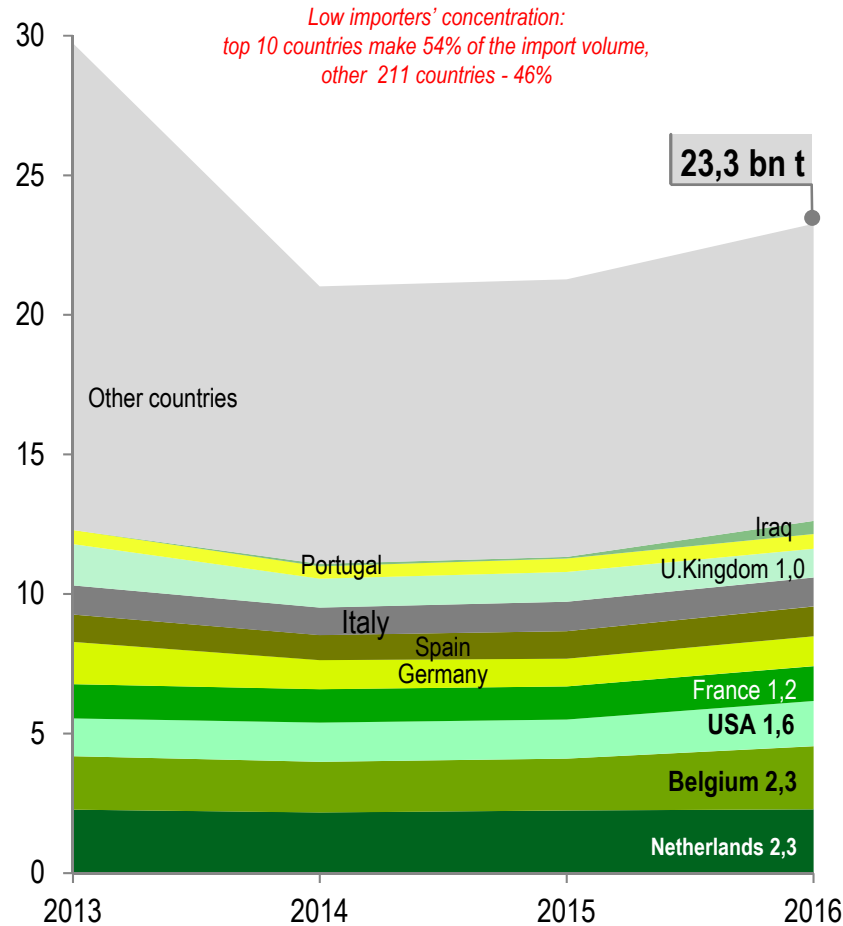
# World import of potatoes by countries

Netherlands and Belgium import the most potatoes in volume, while USA is the largest importer in value

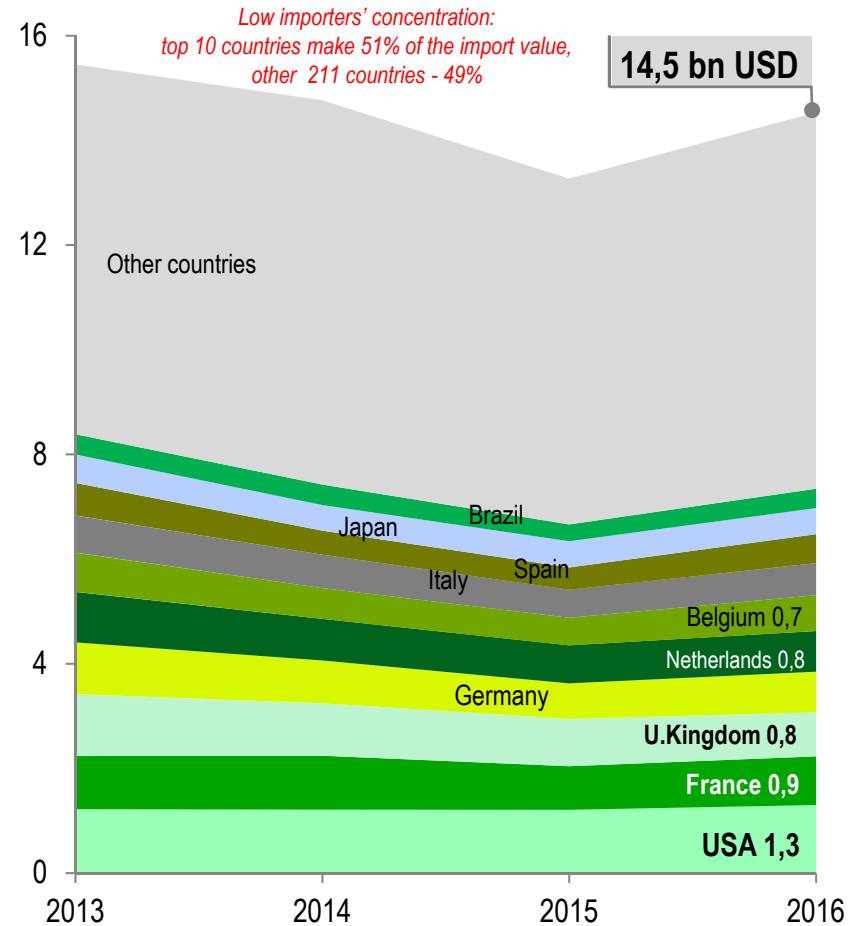


All kinds of potato and its products

### Top 10 by import volume, bn t



### Top 10 by import value, bn USD



Source: ITC calculations based on UN COMTRADE and ITC statistics, [www.trademap.org](http://www.trademap.org), latest available data

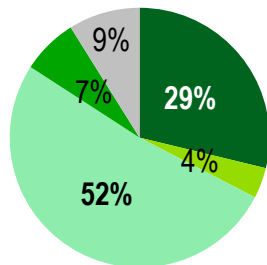
# Structure of the world import, 2016

Raw potatoes is the main category in the structure of import of Netherlands and Belgium. USA is the largest importer of frozen potatoes (e.g. French fries)

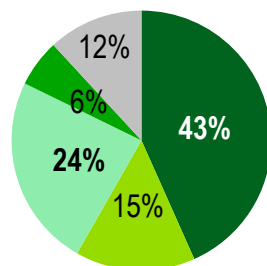


## World

% in volume in the world's import

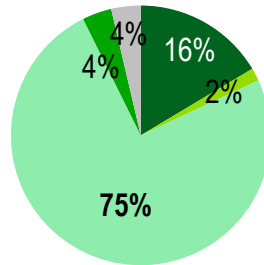


% in value in the world's import

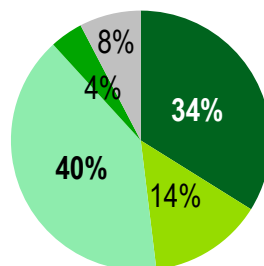


## Netherlands

% in volume of the country's import

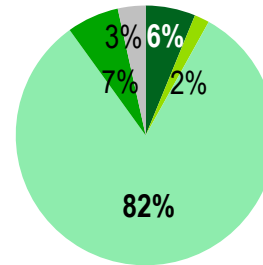


% in value of the country's import

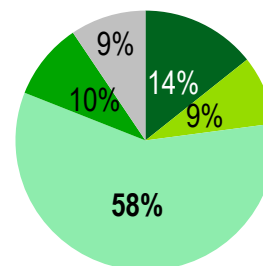


## Belgium

% in volume of the country's import

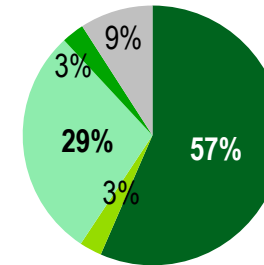


% in value of the country's import

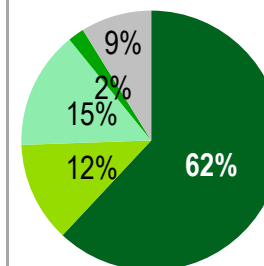


## USA

% in volume of the country's import



% in value of the country's import



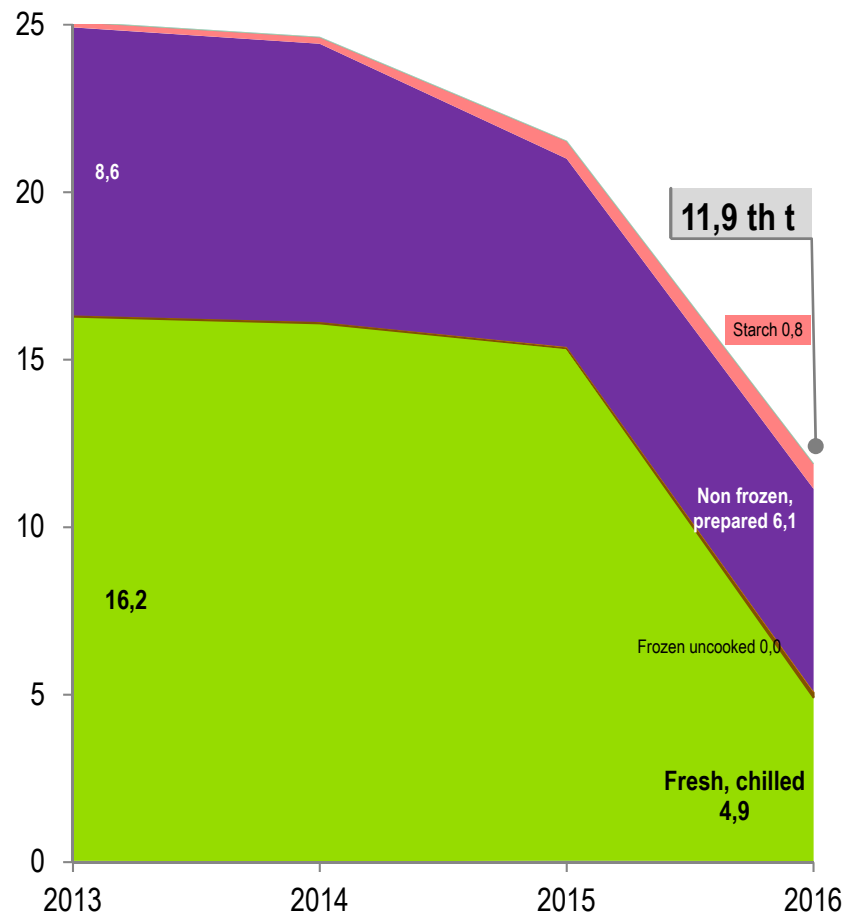
- Frozen, prepared (e.g. French fries)
- Non frozen, prepared (Chips etc.)
- Fresh, chilled
- Seed
- Other

# Ukraine's export of potatoes by categories

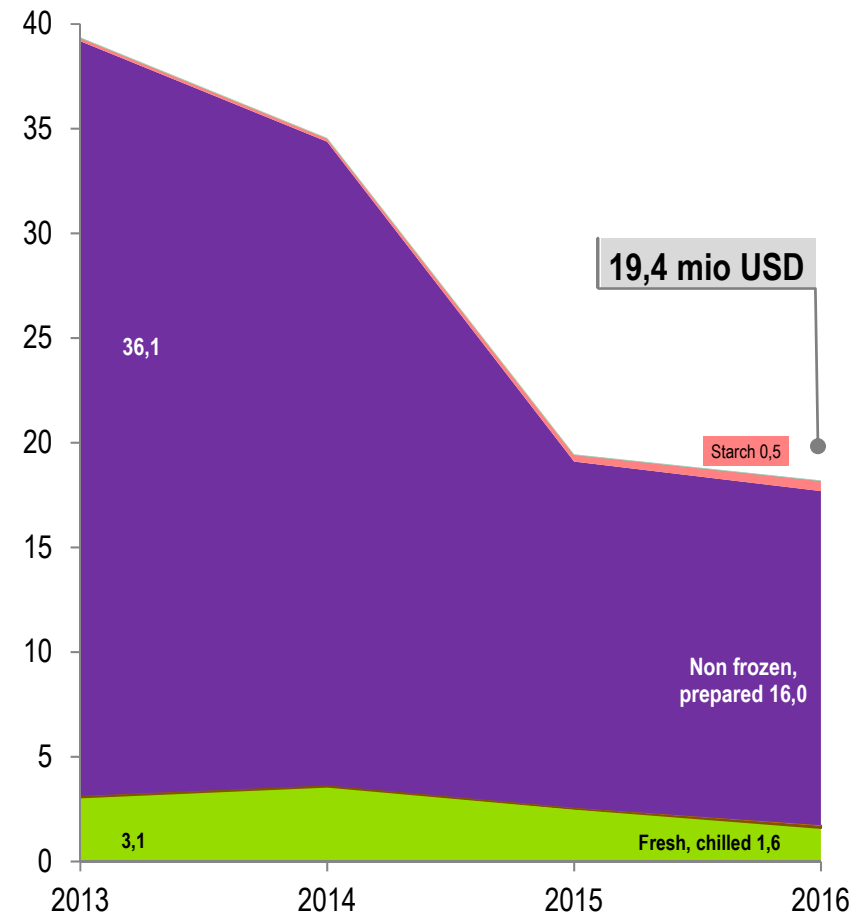
Ukraine significantly decreased export of potatoes since 2014 both in volume and value mainly due to the drop in fresh potatoes and prepared non frozen potatoes (e.g. chips and instant puree) export



Potato categories by export volume, th t



Potato categories by export value, mio USD



Source: ITC calculations based on UN COMTRADE and ITC statistics, [www.trademap.org](http://www.trademap.org), latest available data

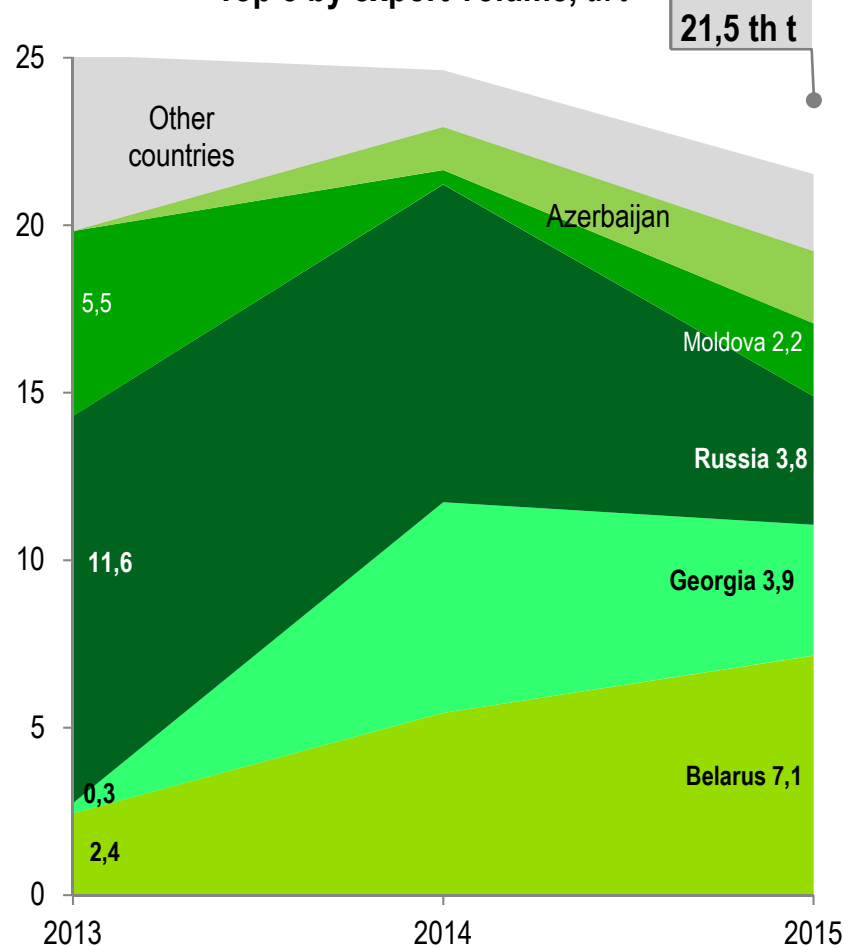
# Ukraine's export of potatoes by countries

By 2015 Belarus became the main destination of the Ukrainian export in volume and Russia – in value

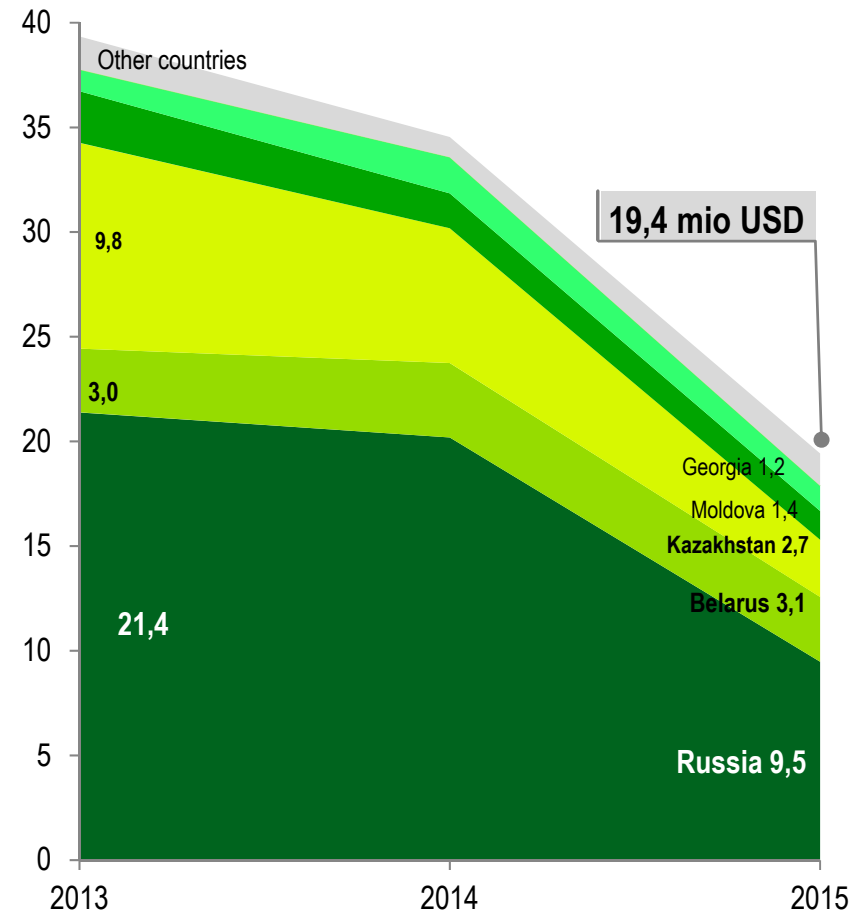


All kinds of potato and its products

Top 5 by export volume, th t



Top 5 by export value, mio USD



Source: ITC calculations based on UN COMTRADE and ITC statistics, [www.trademap.org](http://www.trademap.org), latest available data

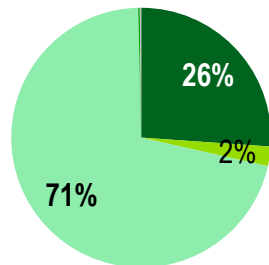
# Structure of the Ukraine's export, 2015

Non frozen prepared potatoes (e.g. chips and instant puree) constitute 26% of volume of the Ukraine's export and 85% of its value. By 2015 Russia was the main buyer of Ukraine's potato chips and puree

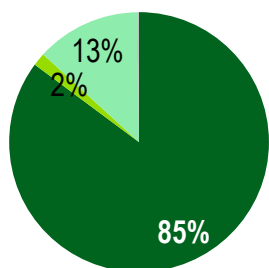


## World

% in volume in the Ukraine's export

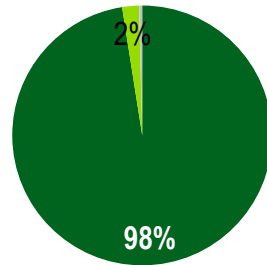


% in value in the Ukraine's export

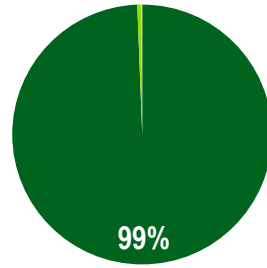


## Russia

% in volume of the export to the country

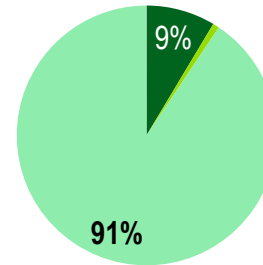


% in value of the export to the country

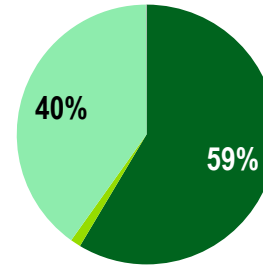


## Belarus

% in volume of the export to the country

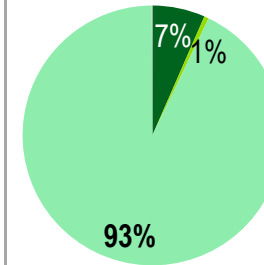


% in value of the export to the country

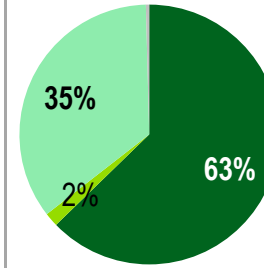


## Georgia

% in volume of the export to the country



% in value of the export to the country



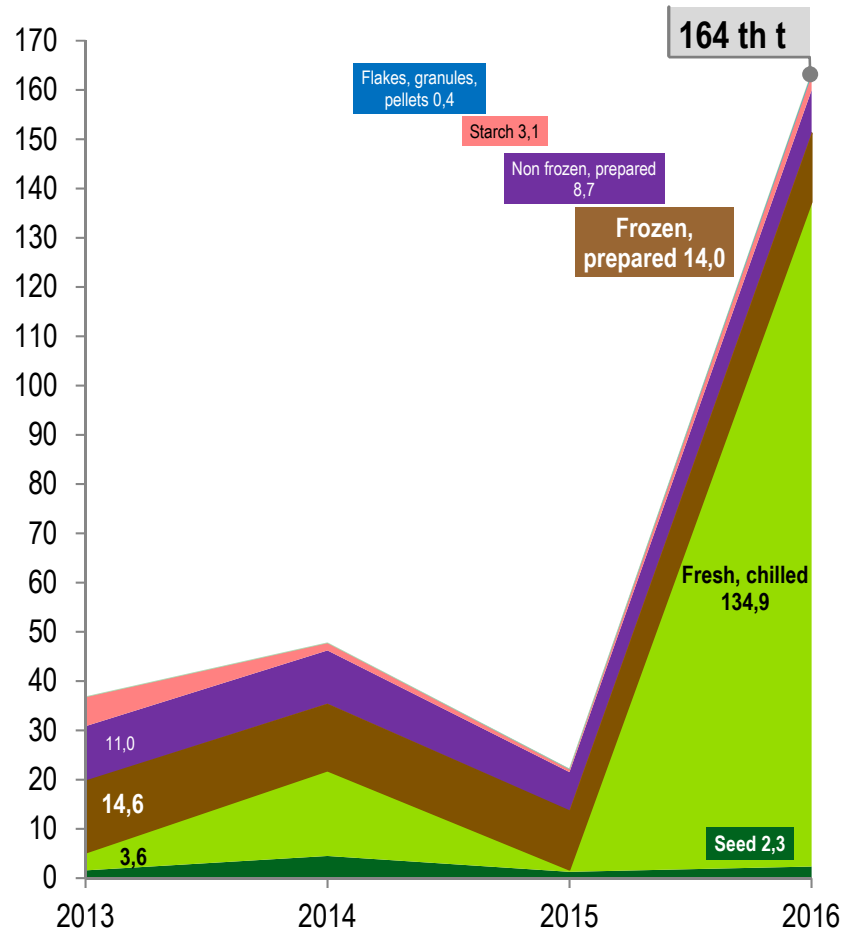
- Non frozen, prepared (e.g. chips, puree)
- Starch
- Fresh, chilled
- Seed
- Other

# Ukraine's import of potatoes by categories

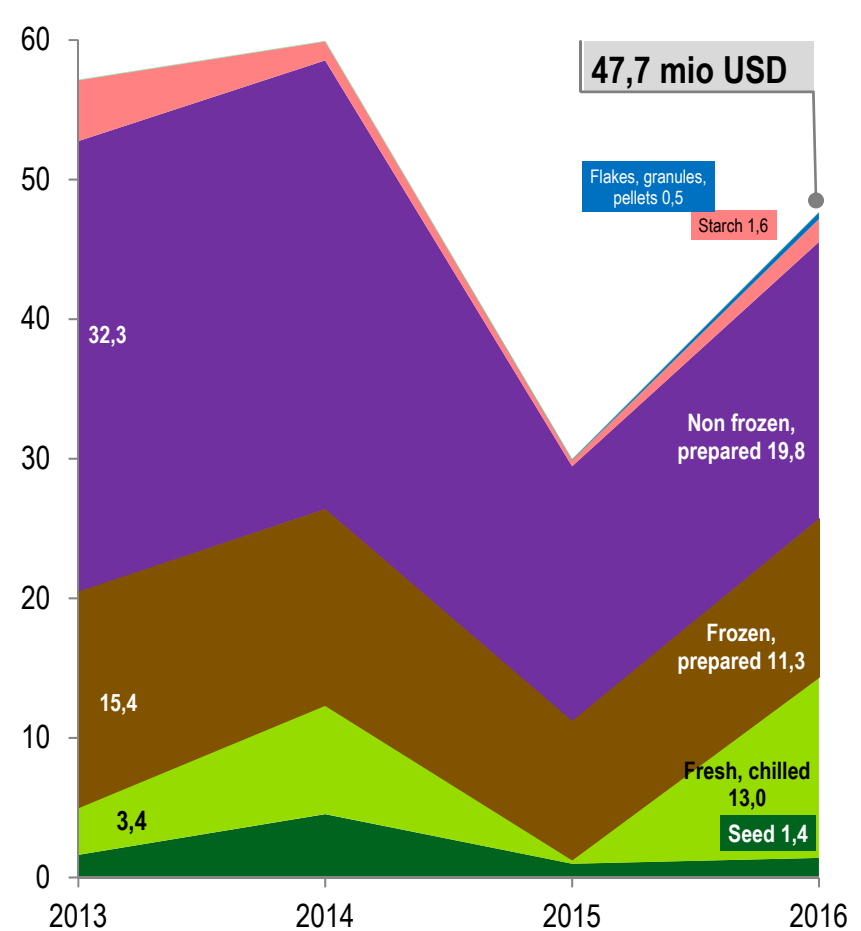
Ukraine hugely increased import volume of the fresh potatoes since 2015



Potato categories by import volume, th t



Potato categories by import value, mio USD



Source: ITC calculations based on UN COMTRADE and ITC statistics, [www.trademap.org](http://www.trademap.org), latest available data

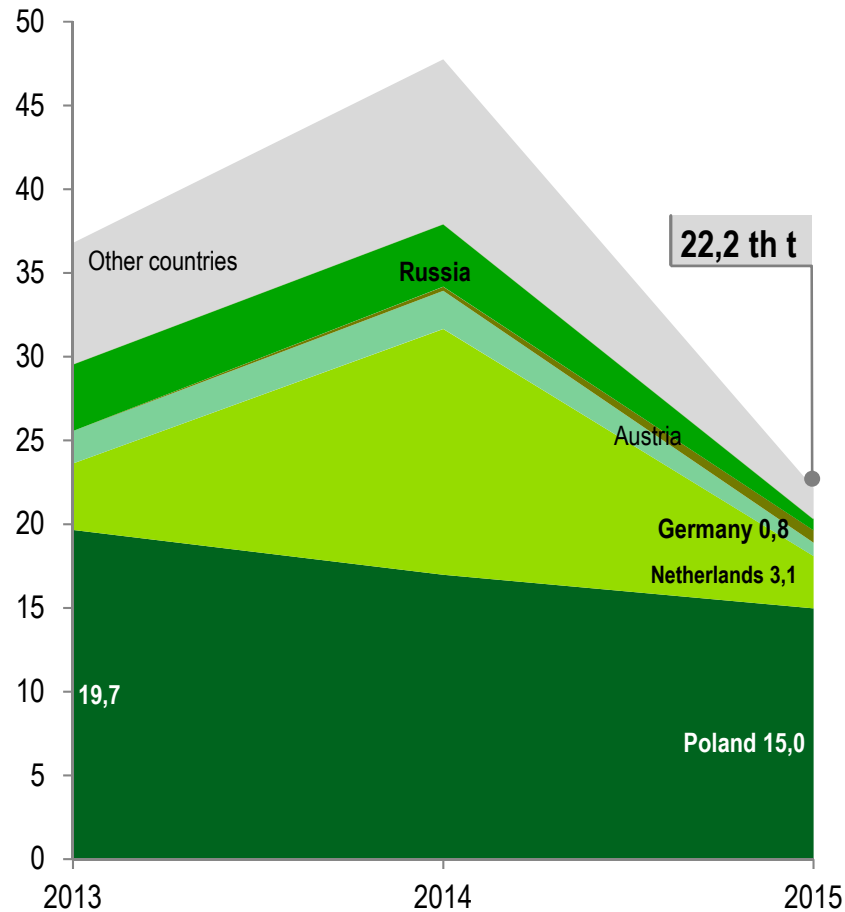
# Ukraine's import of potatoes by countries

Poland is the main source of potatoes import to Ukraine

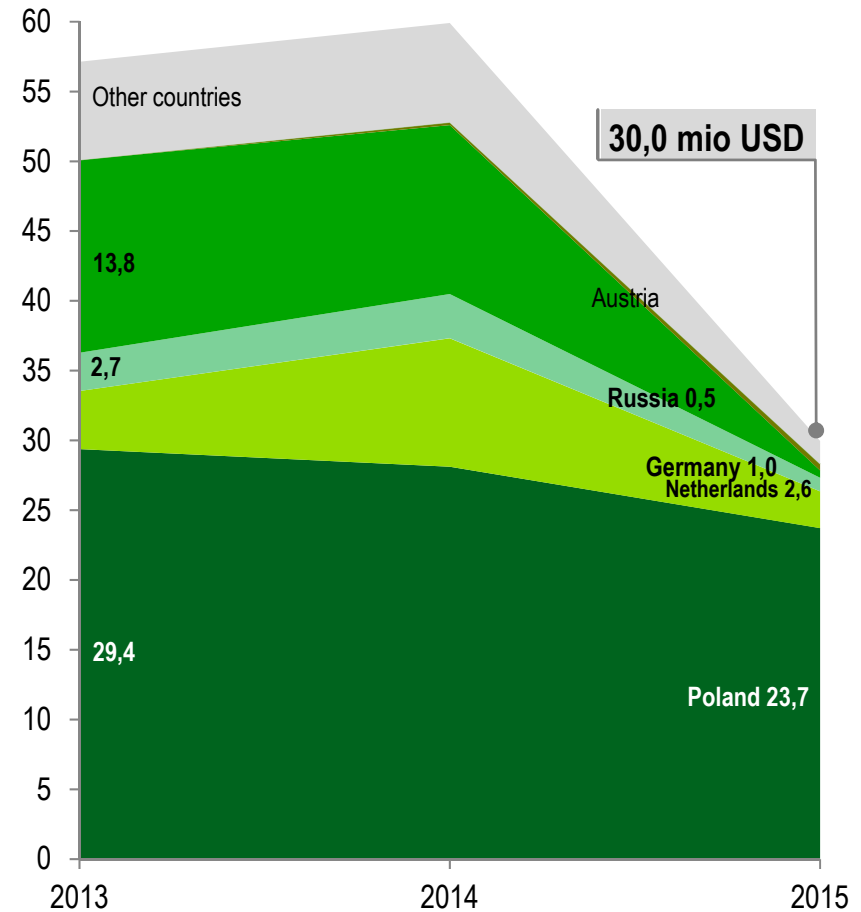


All kinds of potato and its products

Top 5 by import volume, th t



Top 5 by import value, mio USD



Source: ITC calculations based on UN COMTRADE and ITC statistics, [www.trademap.org](http://www.trademap.org), latest available data

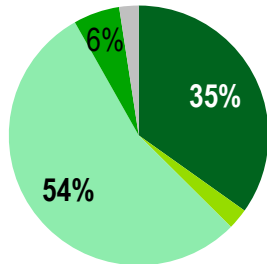
# Structure of the Ukraine's import, 2015

Ukraine takes frozen potatoes from Netherlands and Poland, while non prepared non frozen (chips) potato is from Germany

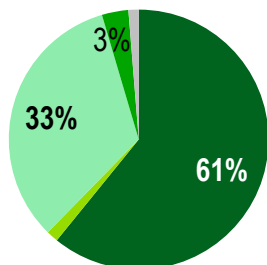


## World

% in volume of the import from the country

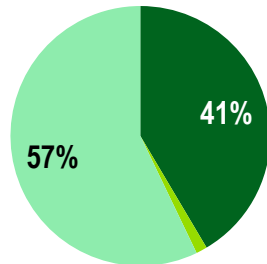


% in value of the import from the country

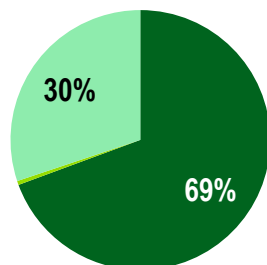


## Poland

% in volume of the import from the country

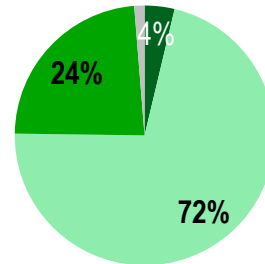


% in value of the import from the country

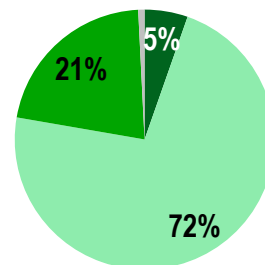


## Netherlands

% in volume of the import from the country

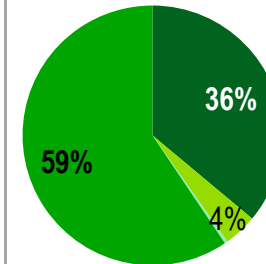


% in value of the import from the country

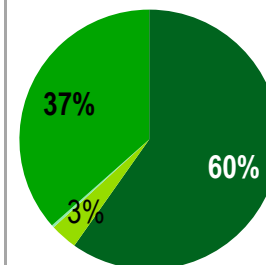


## Germany

% in volume of the import from the country



% in value of the import from the country



- Non frozen, prepared (e.g. chips, puree)
- Starch
- Frozen, prepared (e.g. French fries)
- Seed
- Other

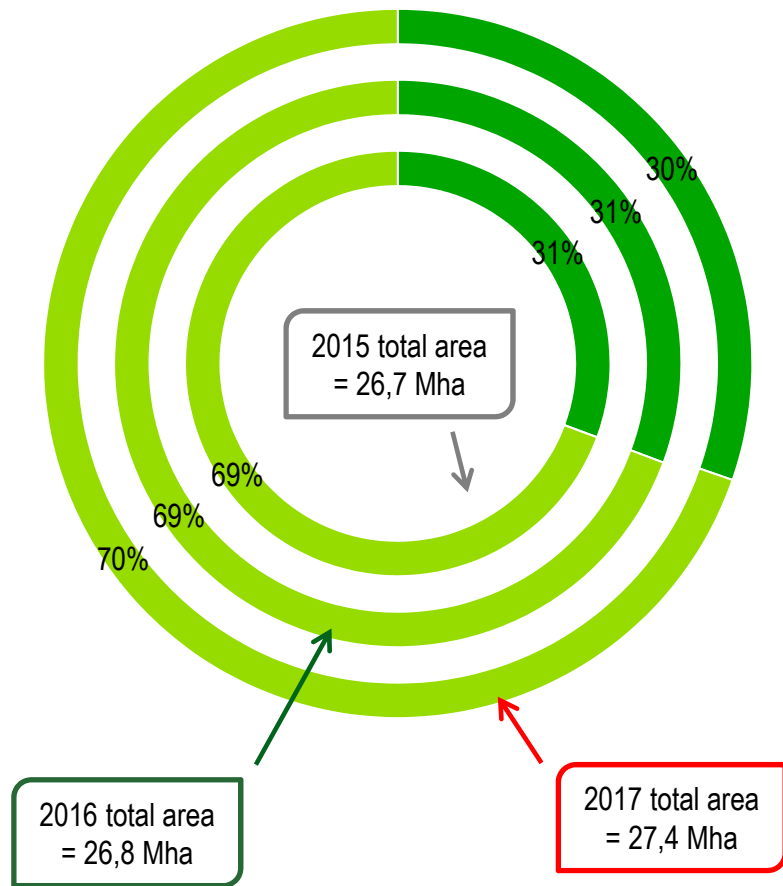
# Growers and crops structure in Ukraine

Growers structure: households cultivate about 30% from total area, means over 8 mio ha, 15% belongs to potatoes

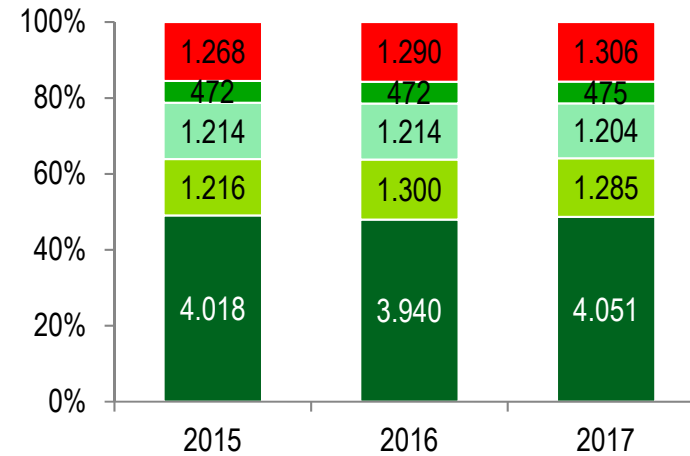
Potatoes area of enterprises and farms is about 20 Kha

### structure of total cultivated area based on types of farming

■ households ■ agricultural enterprises and farms

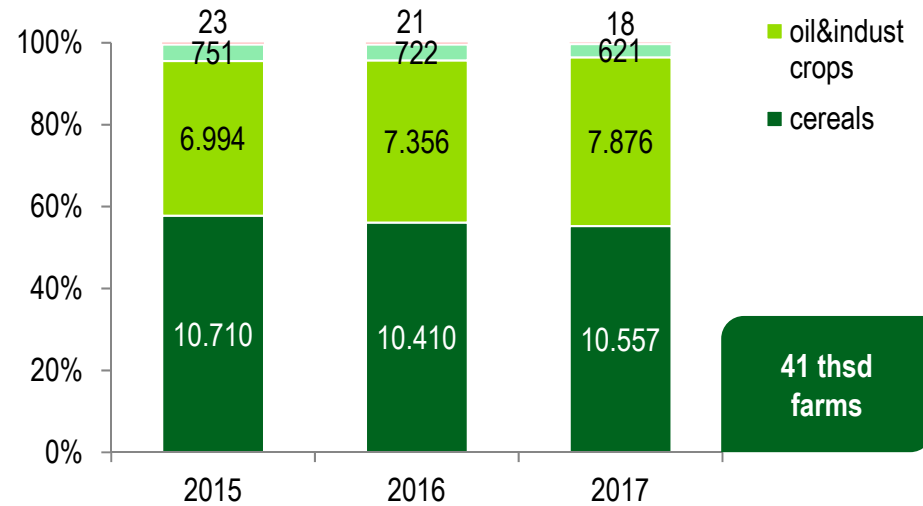


### structure of sowing area – households, Kha



17,5 mio households

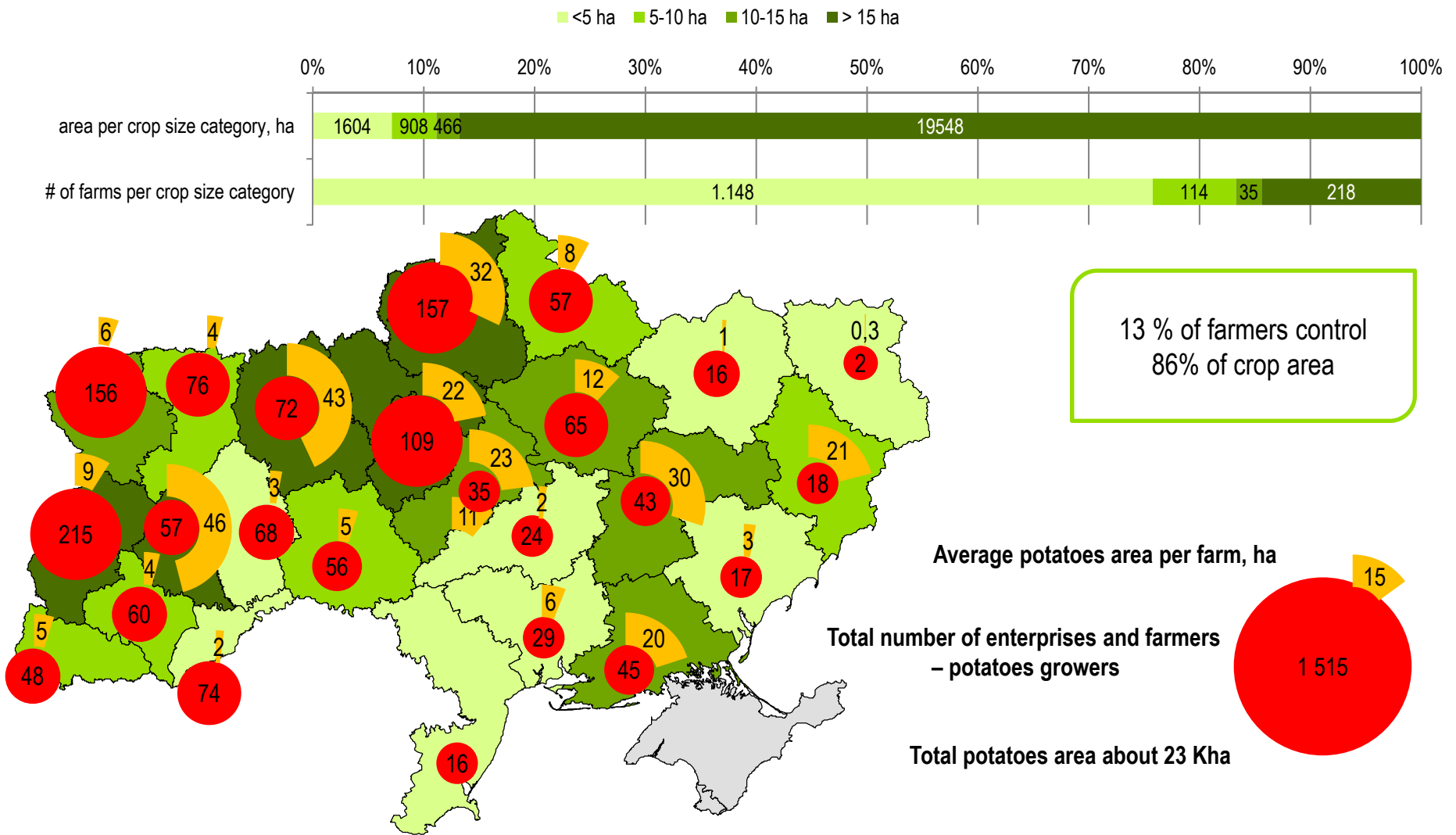
### structure of sowing area – enterprises & farms, Kha



41 thsd farms

# Area and number of agriculture enterprises and farmers potatoes growers, 2016

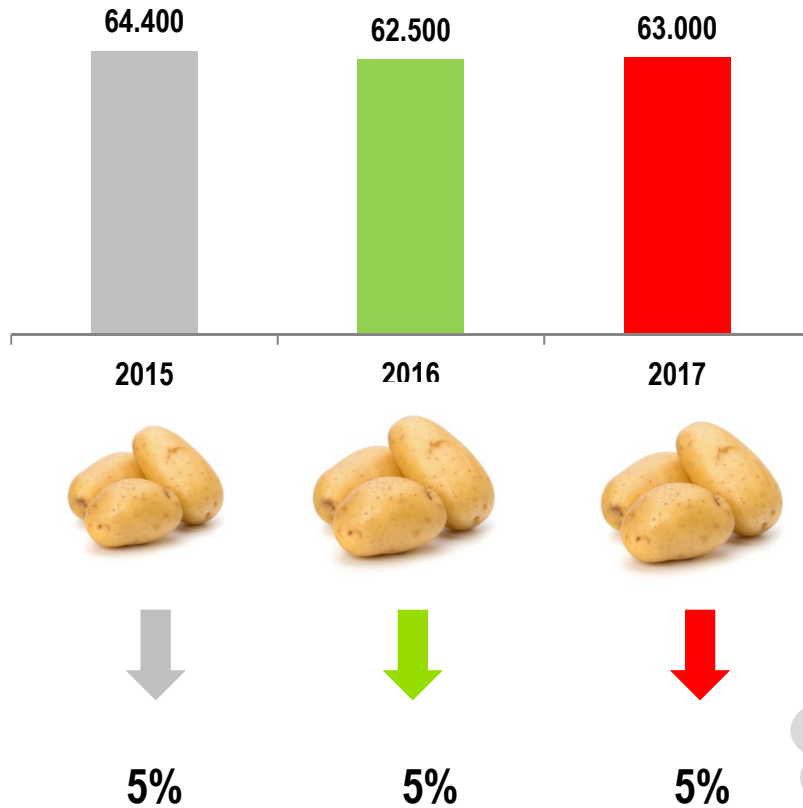
About 1500 enterprises and farmers grown potatoes with average crop area 15 ha.



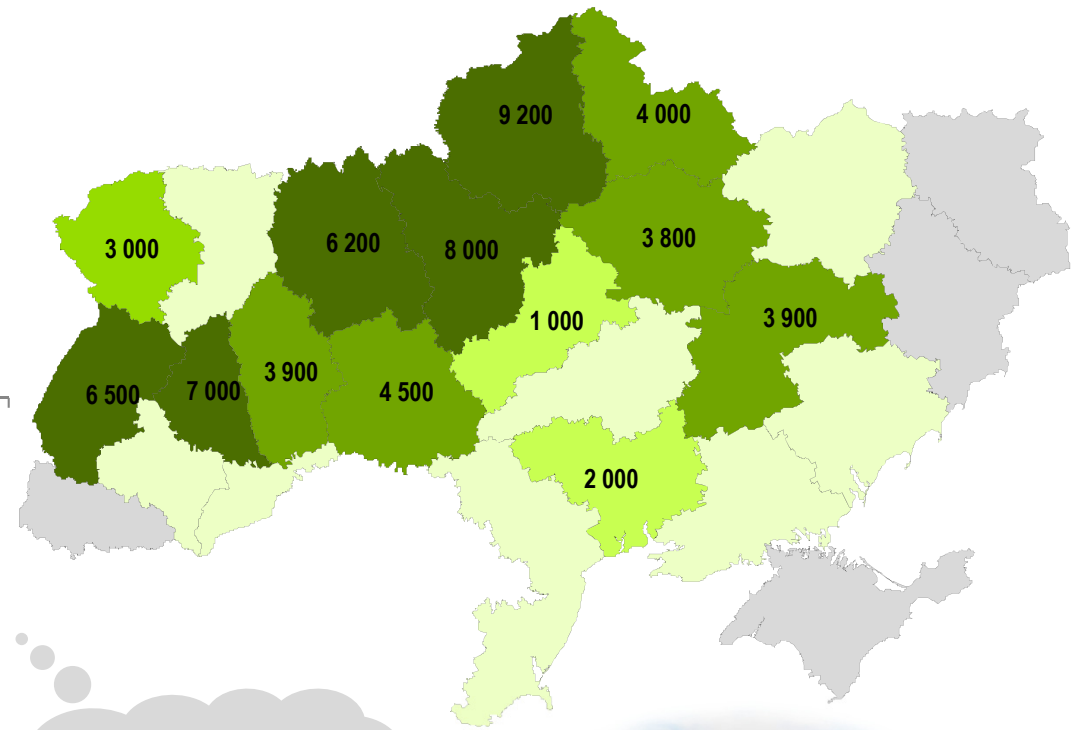
# Estimation of intensive potatoes area

About 5% from total potatoes area belongs to industrial farms

Evaluation of intensive potatoes area, ha



Main region of intensive potatoes, 2017

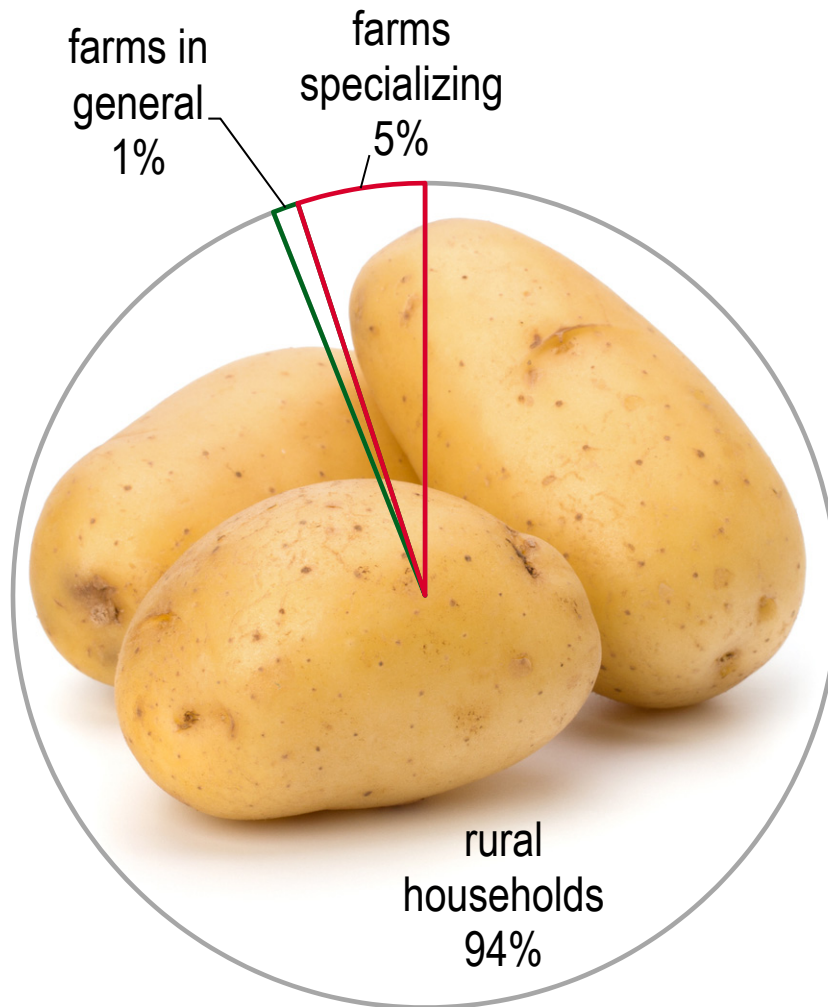


Intensive cultivation,  
industrial processing,  
selling

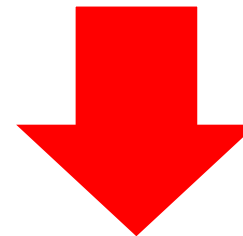


Share of industrial potatoes from total potatoes area

# Summary – potatoes producers



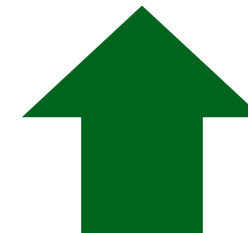
About 1 500 farms in general\*, but only 1/3 from them are specializing farms



**Intensive approach**  
average crop area per farm 65 ha  
maximum 1 000 ha



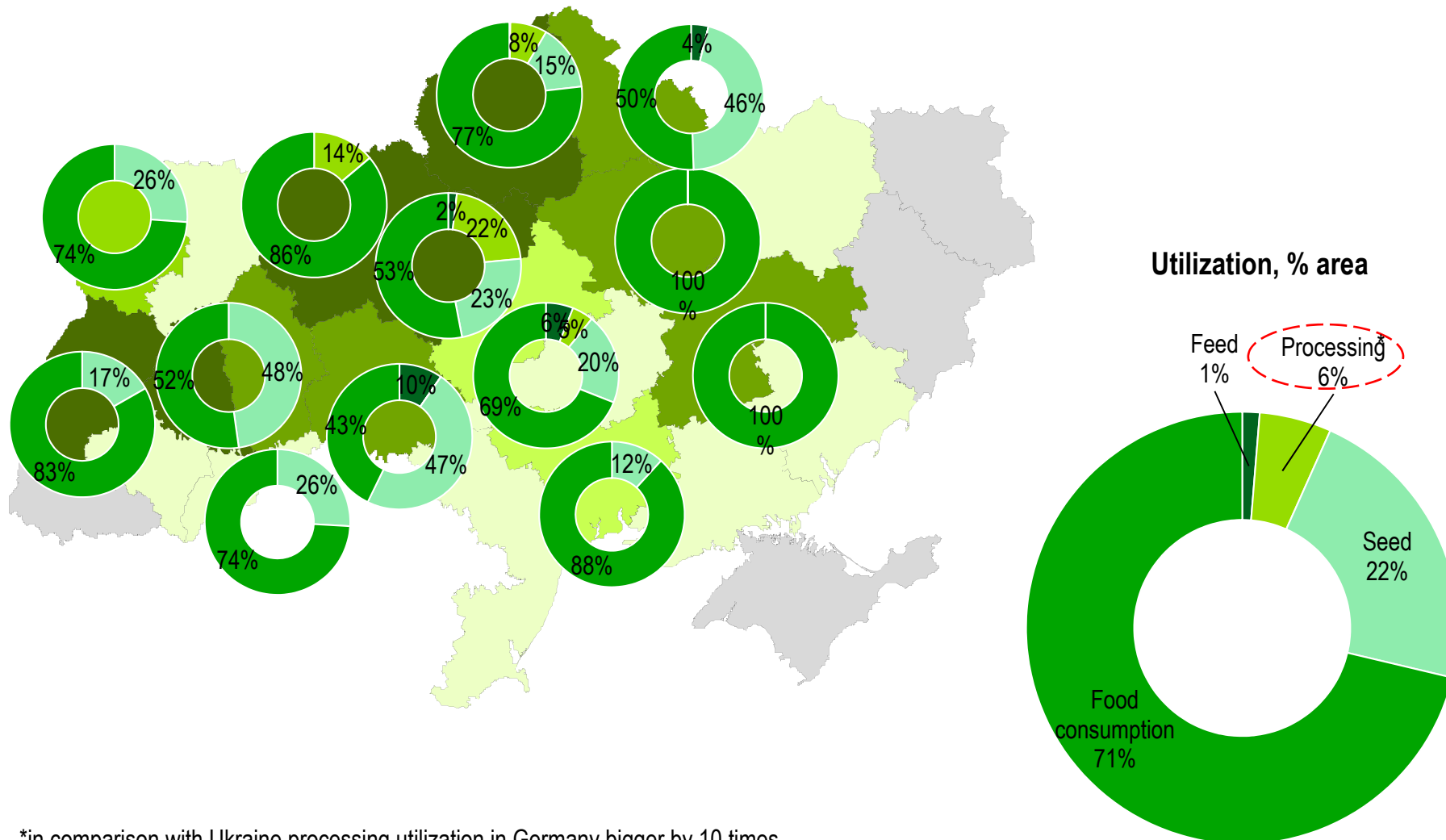
**Farm saved seeds**  
small package  
0,06 ha per crop



17,5 mio households in Ukraine.  
About 13 mio of rural population (from them 2,9 have main work in agriculture, forestry and fisheries)

## Directions of utilization, Ukraine 2017 (industrial segment)

Food consumption – main direction of utilization. Farmers from West regions use from 17% till 48% of potatoes area for seeds production

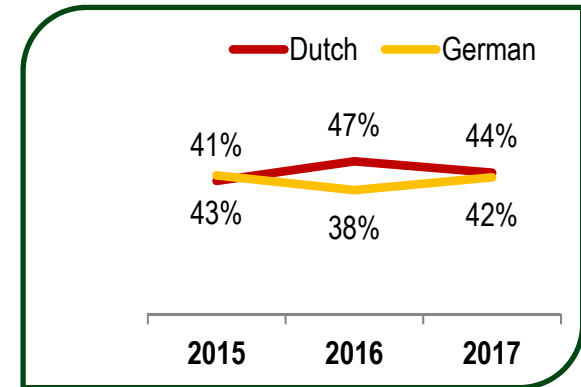
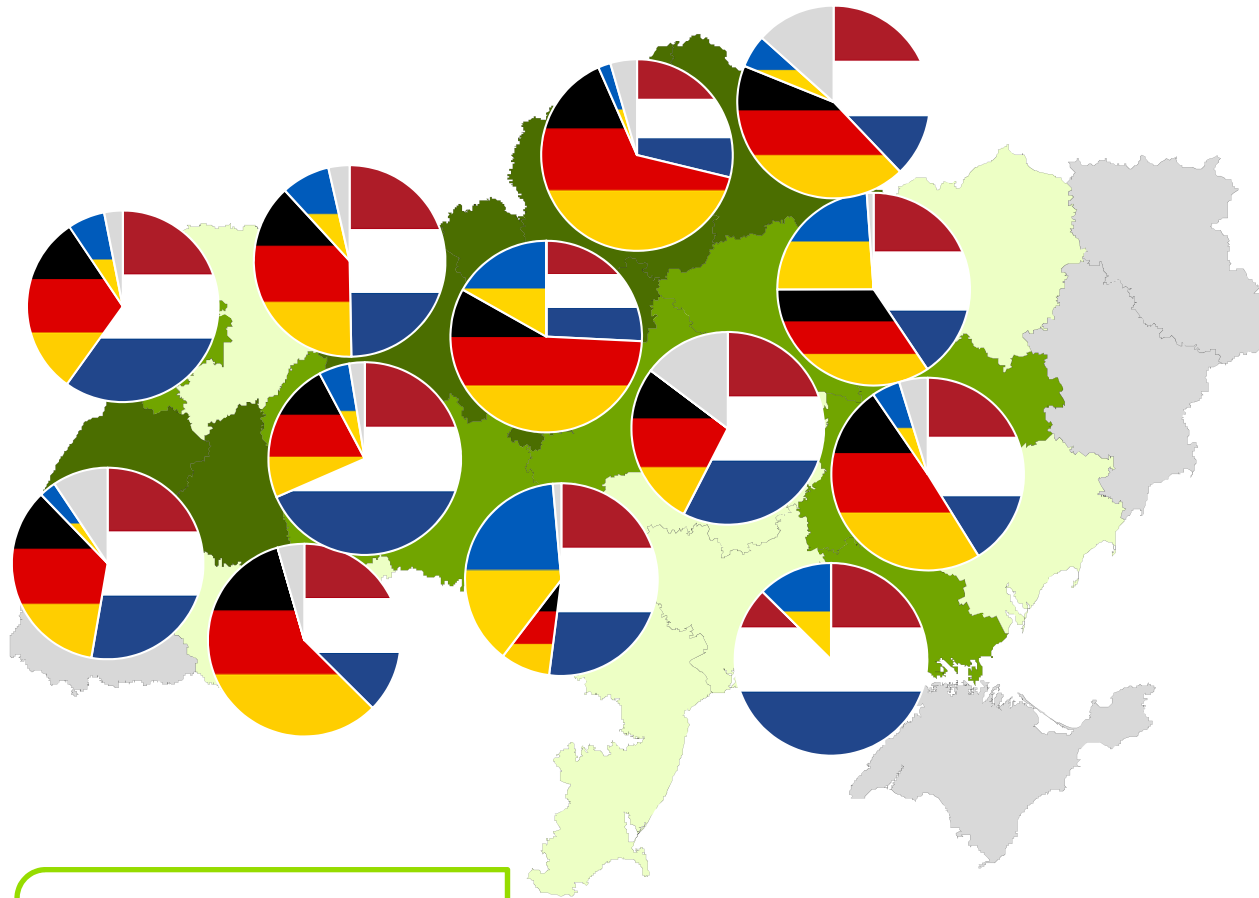


\*in comparison with Ukraine processing utilization in Germany bigger by 10 times.

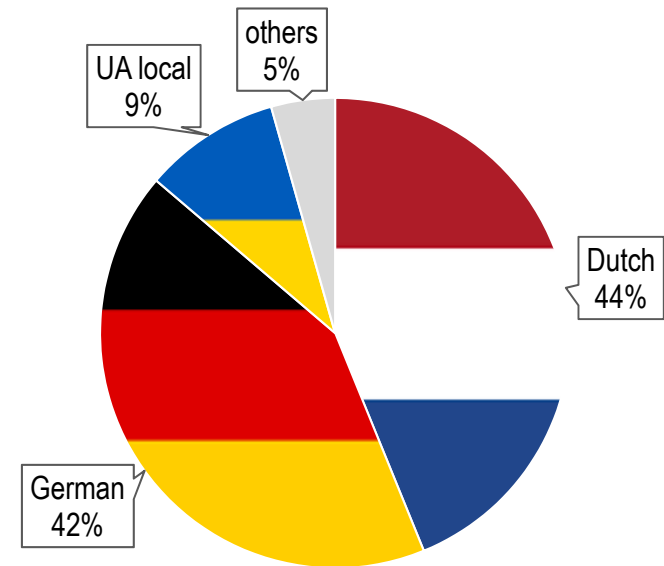
Based on study 2016 about 1/3 of growing potatoes was used on processing (food) and 1/3 - for industrial purpose (starch).

# Share of breeders, % from area 2017 (industrial segment)

Dutch and German breeders are leading on UA potatoes seed market with similar shares



Share of breeders, 2017 % area

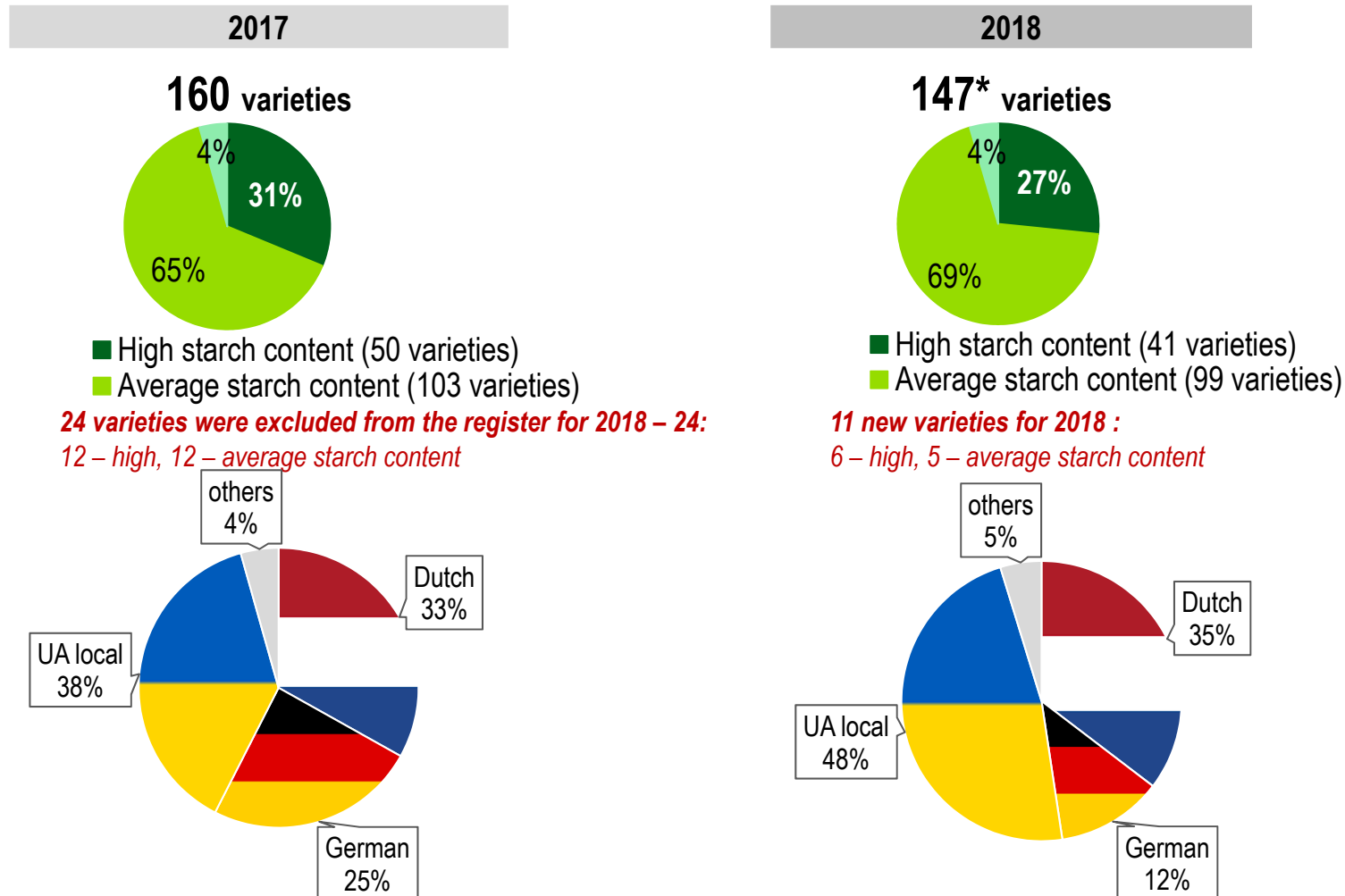


Farmers from North part tend to choose German varieties  
From West and Center part – Dutch

# Number of varieties registered in Ukraine

Despite rotation of the varieties in the Register, the number of varieties with a high starch content kept 1/3 in numbers

## Potato varieties registered for



\*Actual Register on date 24.01.2018. It seems that Norika's varieties have delay with registration, it is why the share of German breeders decreased in 2 times (in 2017 – 16 varieties were registered, in 2018 – none yet variety registered). It is why the share of German breeders decreased in 2 times.

## Average Number of varieties per farms

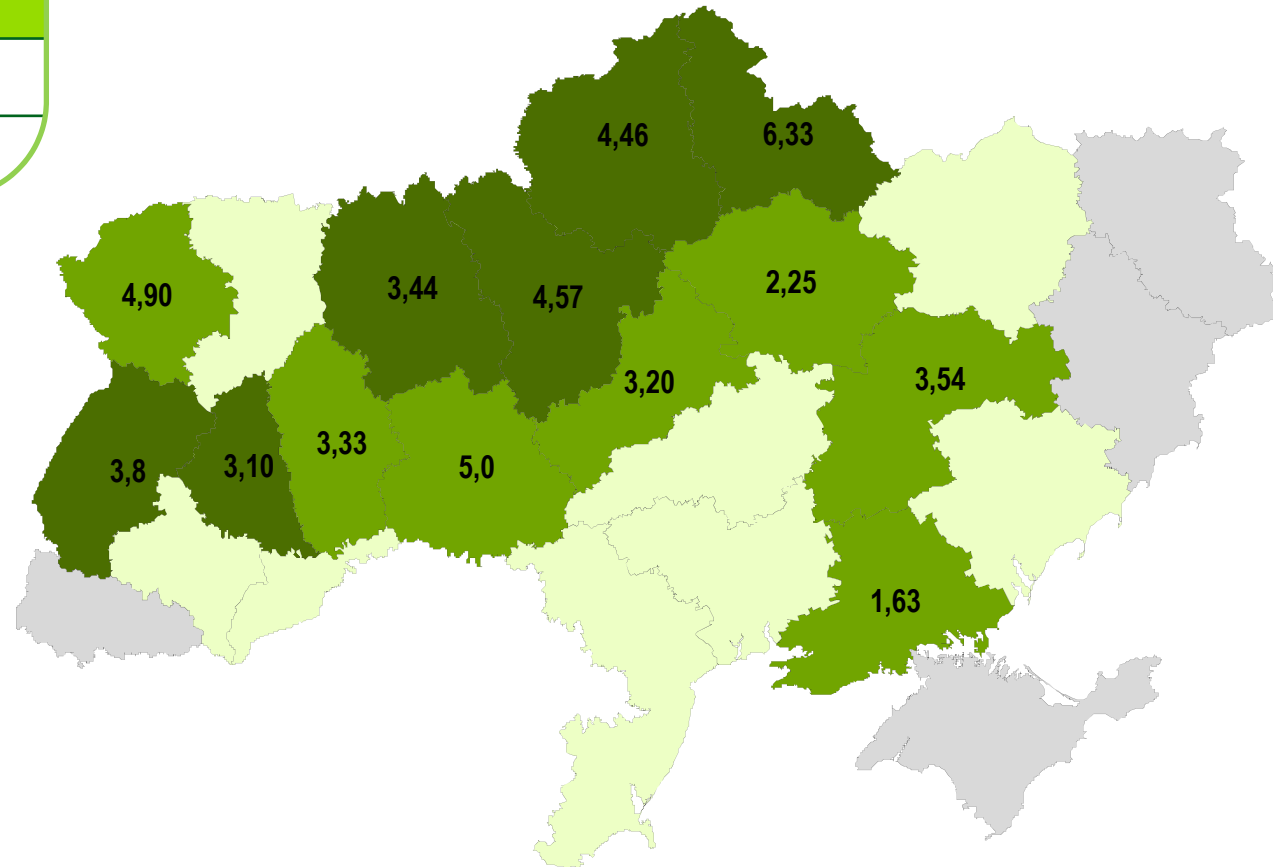
Farmers prefer to sown mainly 3-4 varieties in one farm.

### Number of varieties per farms 2015-2017

	average	max
2017	3,88	14
2016	3,82	15
2015	3,59	15

### Regional information 2017

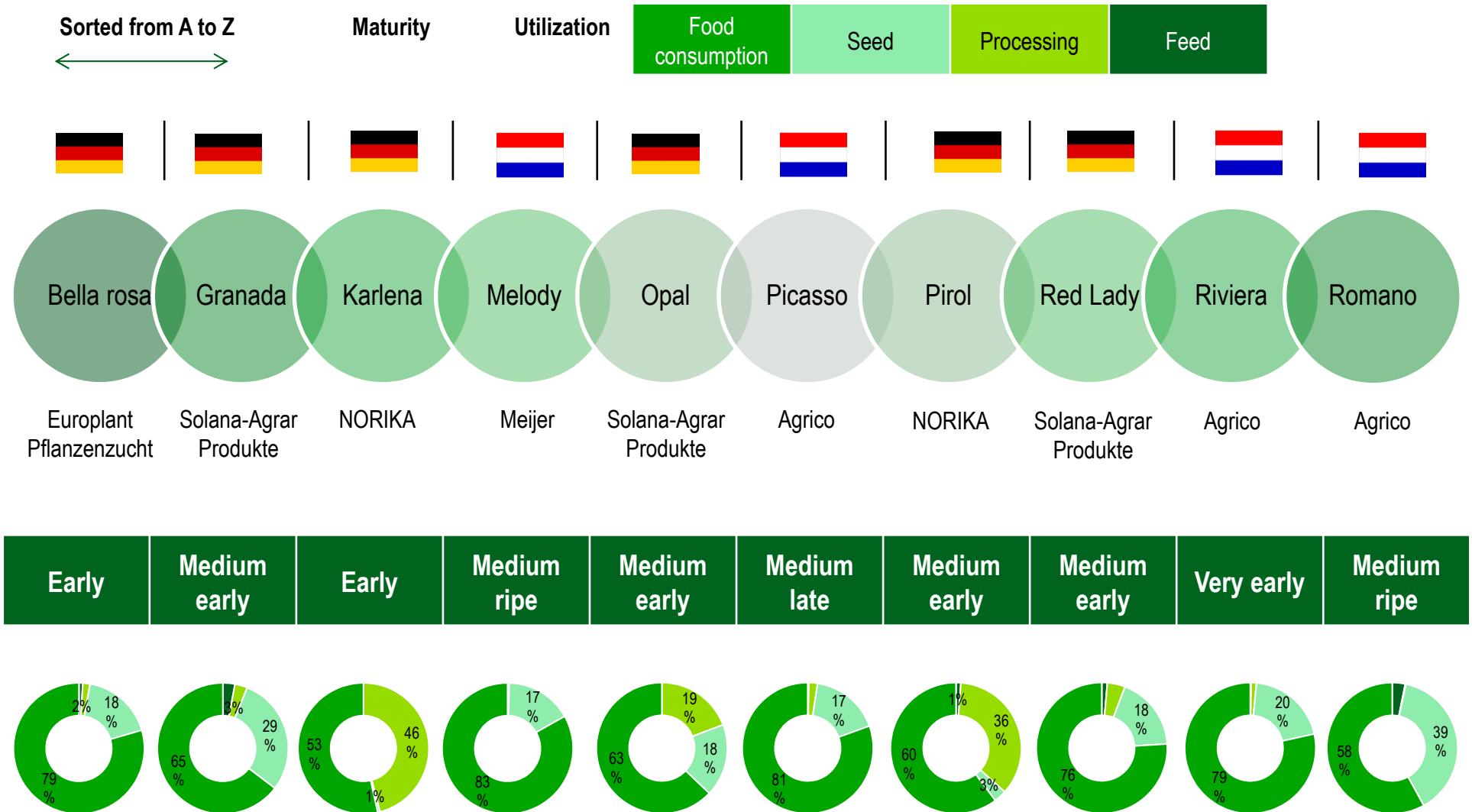
Color means area, thsd. ha for industry segment.  
Numbers mean average number of varieties per farm in study



# Top-10 varieties (industrial segment) 2017

Kept 52% of market based area (or 51% based on tonnage). Top-2 varieties kept their leading position.

Top 3-5 varieties remain among leaders, but Pirol and Granada have a successful penetration and breakthrough to the leaders.



## Cost/ha of Crop Protection (industrial segment) Ukraine

### CPP usage in 2017 based on TO

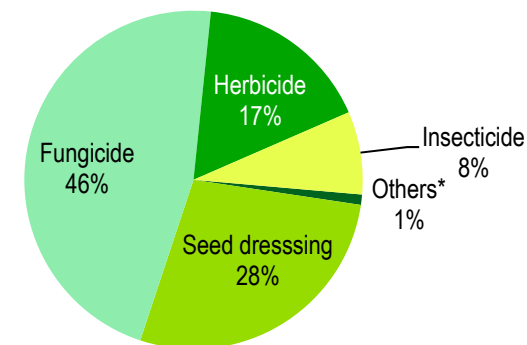
Industrial segment (thsd. ha): 2016=62,5; 2017=63,0

In average farmers paid 294 \$/ha (incl. seed dressing) for crop protection in 2017.

**Fungicides** is the key type among crop protection. Farmers used fungicides on **95%** of sowing area and pay in average **121 \$/ha**, providing 4 treatments.

**97%** of area was treated by **herbicides selective**. Farmers pay **43 \$/ha** with 2 treatment.

**Insecticides** used on the **90%** from sowing area with 2,0 treatments during the season. Farmers invest about 20 \$/ha. Potatoes seeds are mainly treated by seed dressing products, including inoculation, that is important standard measure with average investment - about 100\$/ha.



\*Others: Herbicide, non selective; Additive

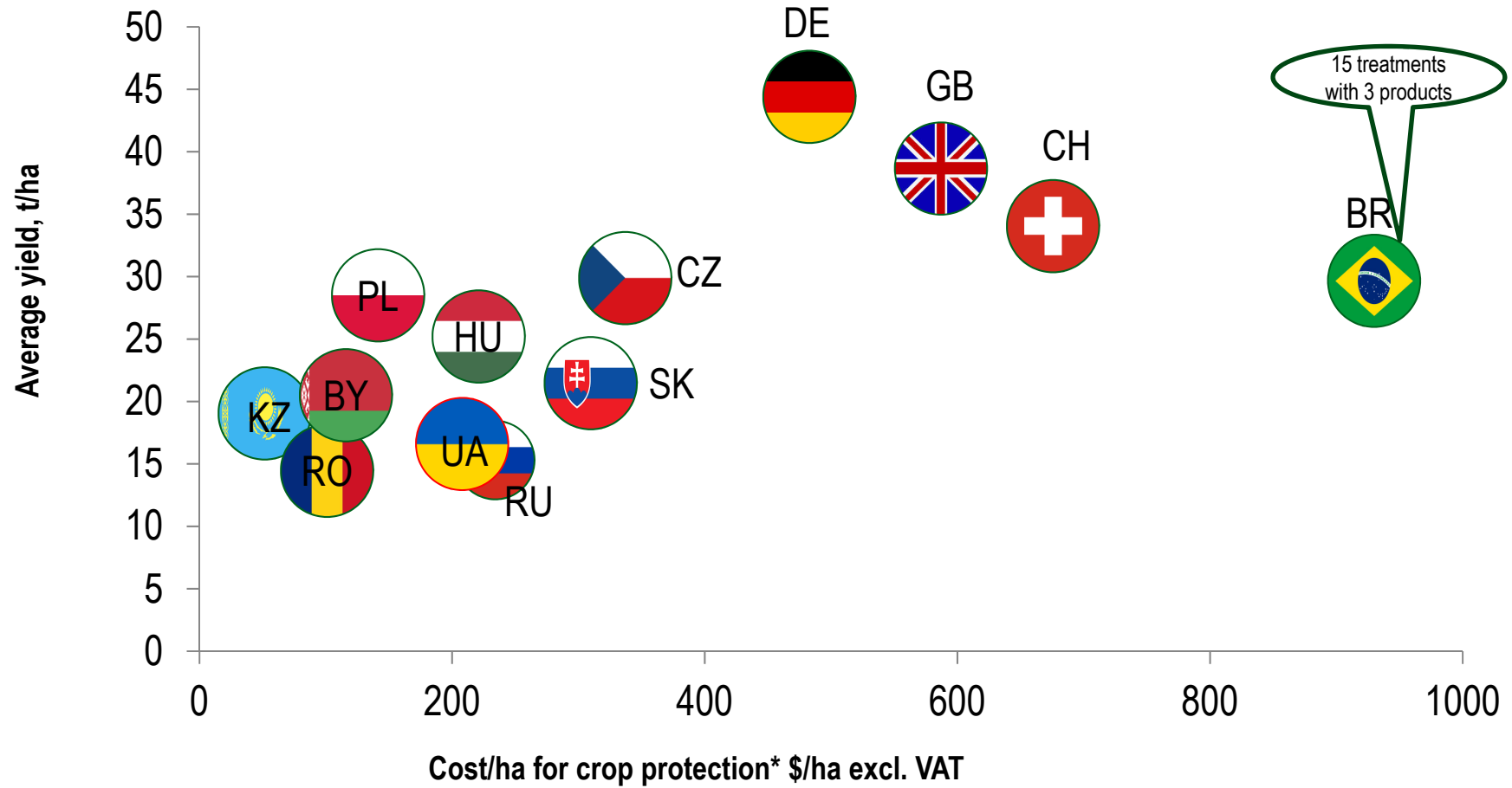
Main type	Fungicides		Herbicides selective		Insecticides	
	2016	2017	2016	2017	2016	2017
Area treated (%)	97%	95%	96%	97%	80%	90%
Treatments/hectare	3,8	4,1	1,6	1,8	2,0	2,0
Cost per hectare (USD excl. VAT)*	134	141	50	50	25	25

\* Cost/ha = Turnover farmer / Cultivated Area

# Average cost/ha for crop protection and yield by countries

Countries comparisons

Top-3 countries based on investments in crop protection are: Brazil, Switzerland and Great Britain. Despite of that they have lower yield than Germany.



\* including treatment during vegetation (seed dressing and desiccation were excluded)

