

RuminOmics Regional workshop  
Improving efficiency of production  
and reducing environmental impact

## Baltic cattle breeding industry

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*Baltic Foundation*

*2015*

**1 September 2015, Warsaw**



# General figures of the Baltic States

## ESTONIA

Total surface in km <sup>2</sup>	45'226
Agricultural area in ha	1'000'000
Cropland in % of AA	40
Population	1'332'900
Dairy cattle / cows	100'000
Beef cattle / cows	14'000
Beef breeders	290

## LATVIA

Total surface in km <sup>2</sup>	64'589
Agricultural area in ha	2'520'000
Cropland in % of AA	67
Population	2'290'300
Dairy cattle	154'000
Beef cattle	23'000
Beef breeders	600

## LITHUANIA

Total surface in km <sup>2</sup>	65'301
Agricultural area in ha	3'150'000
Cropland in % of AA	90
Population	3'354'700
Dairy cattle	426'000
Beef cattle	70'000
Beef breeders	16'000



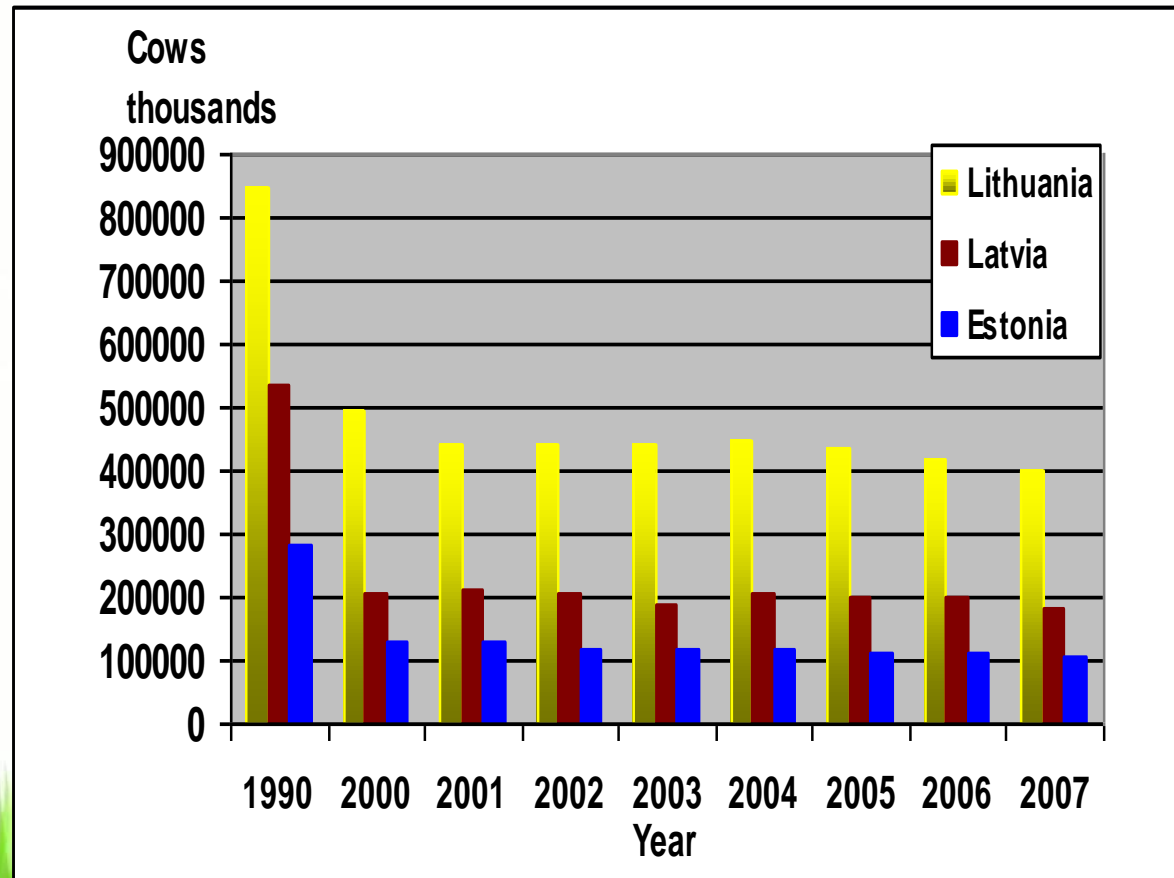
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## Dairy Cows Population

Dairy cows population in Baltic countries has decreased since 1990 by 40 -50 % and additionally since 2000 by:

- Lithuania – 19 %
- Latvia – 10 %
- Estonia – 20 %

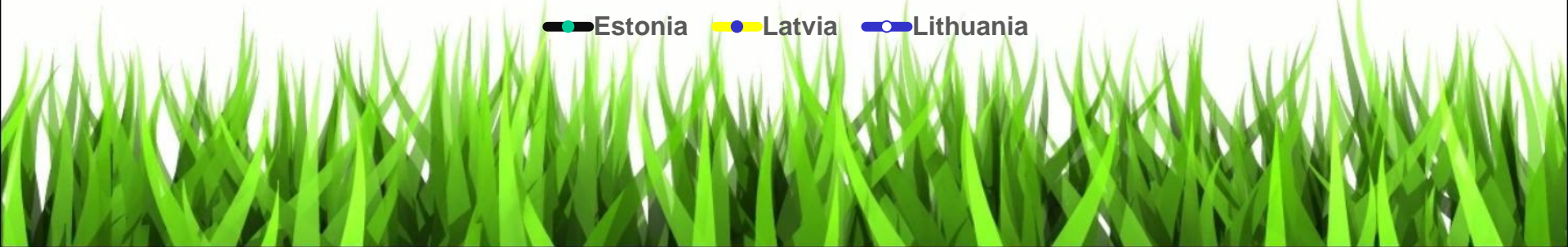
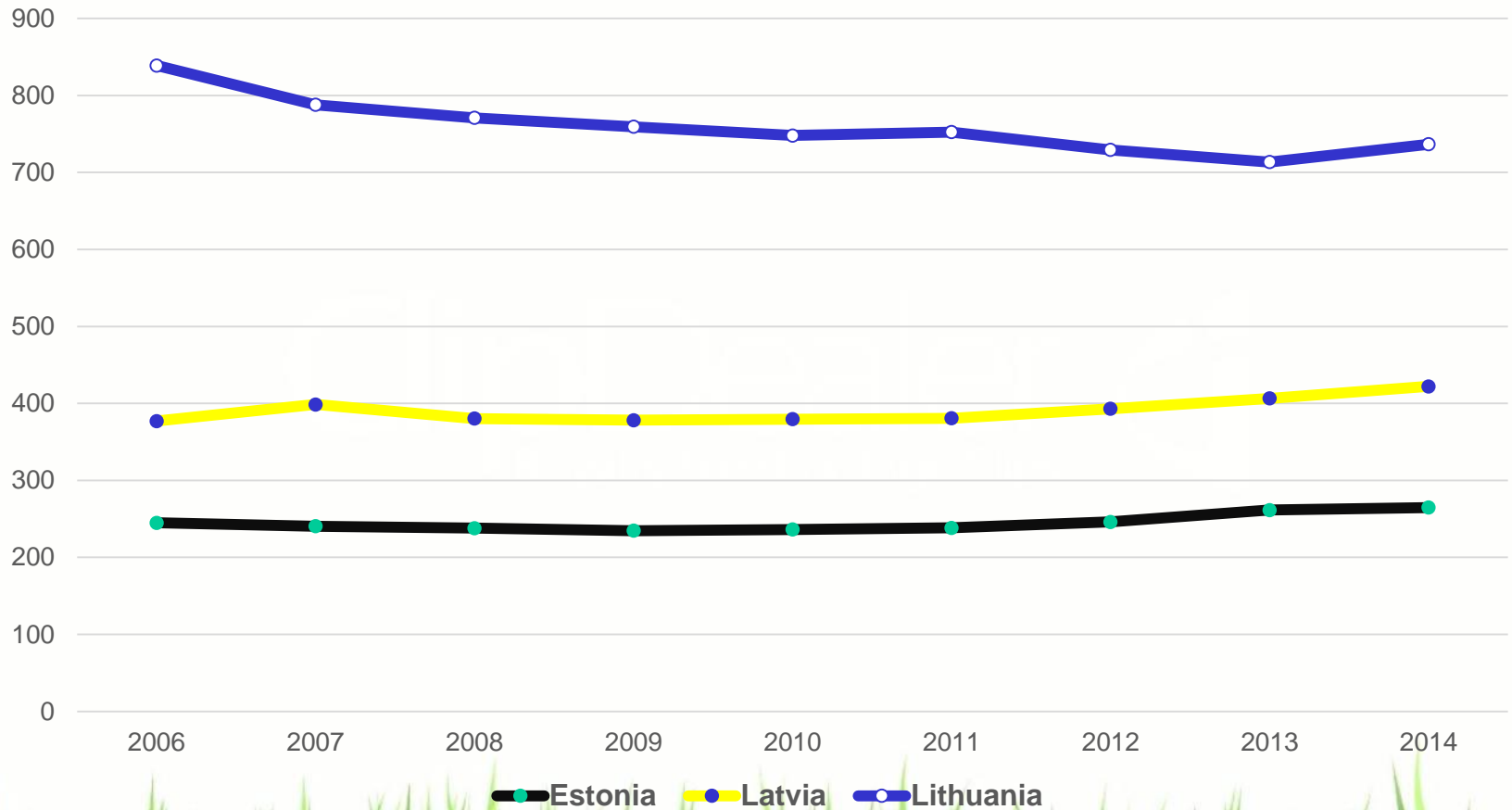
Cows population will continue decreasing in the future.



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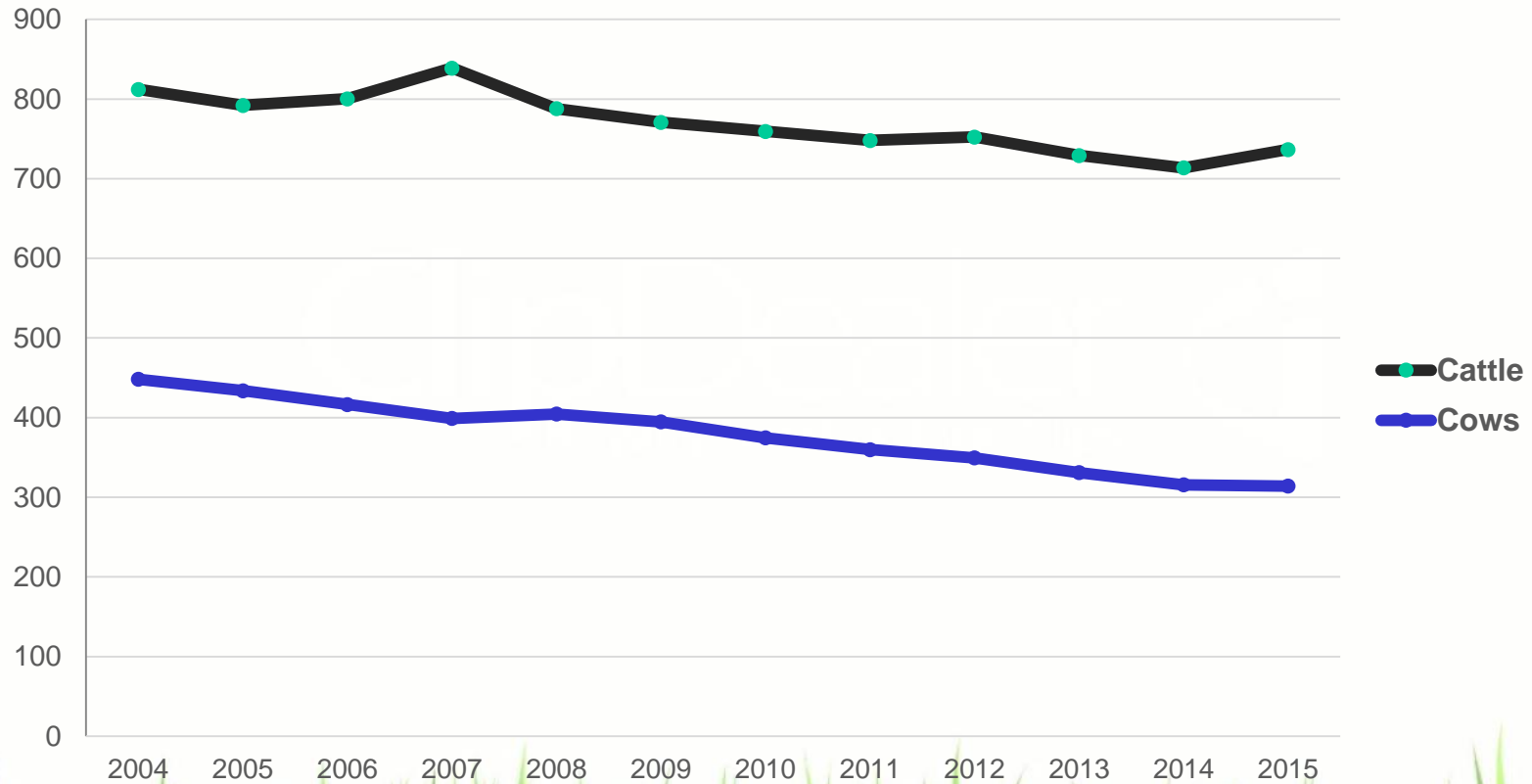
## Cattle population 2006 - 2014 in Baltic counties (thousands)



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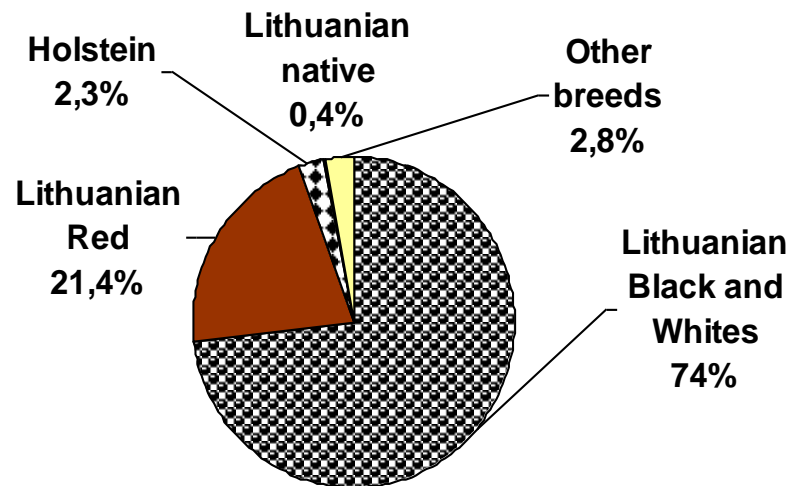
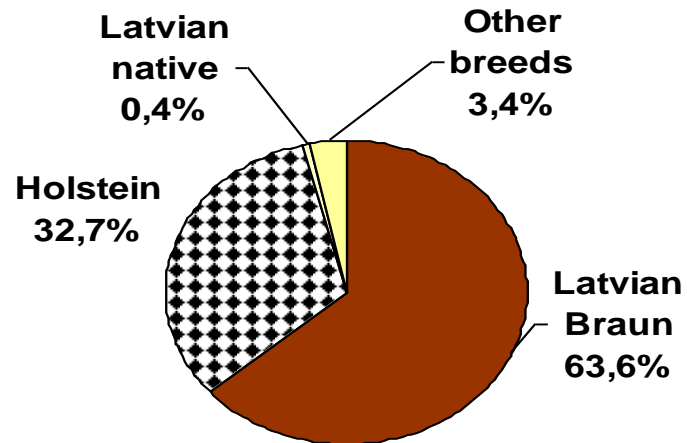
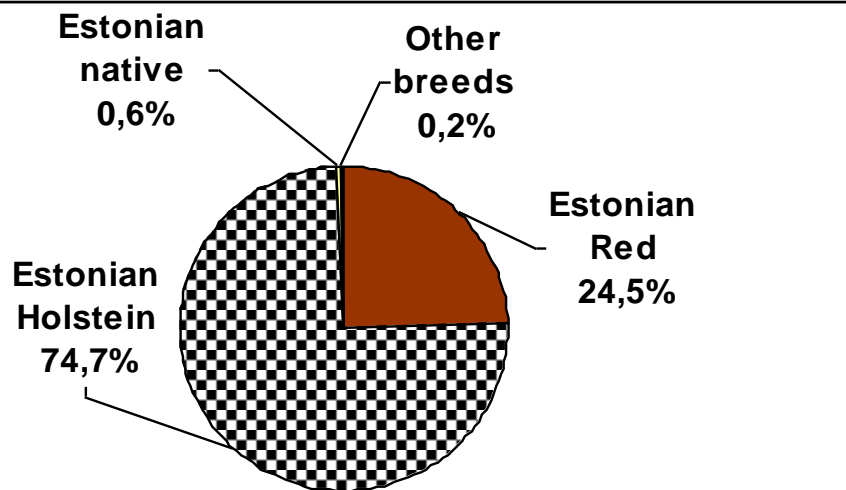
## Cattle and cows number (thousands) 2004 - 2015 in Lithuania



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## Different Dairy Cow Breeds



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## **Milk Recording Dairy Breeds in Baltic Countries**

**In milk recording participated of all dairy cow:**

- **Lithuania - 47%,**
- **Latvia - 69**
- **Estonia - 90 %.**

**The average cows number in milk recording herds:**

- **Lithuania – 17.**
- **Latvia – 13,**
- **Estonia – 75.**

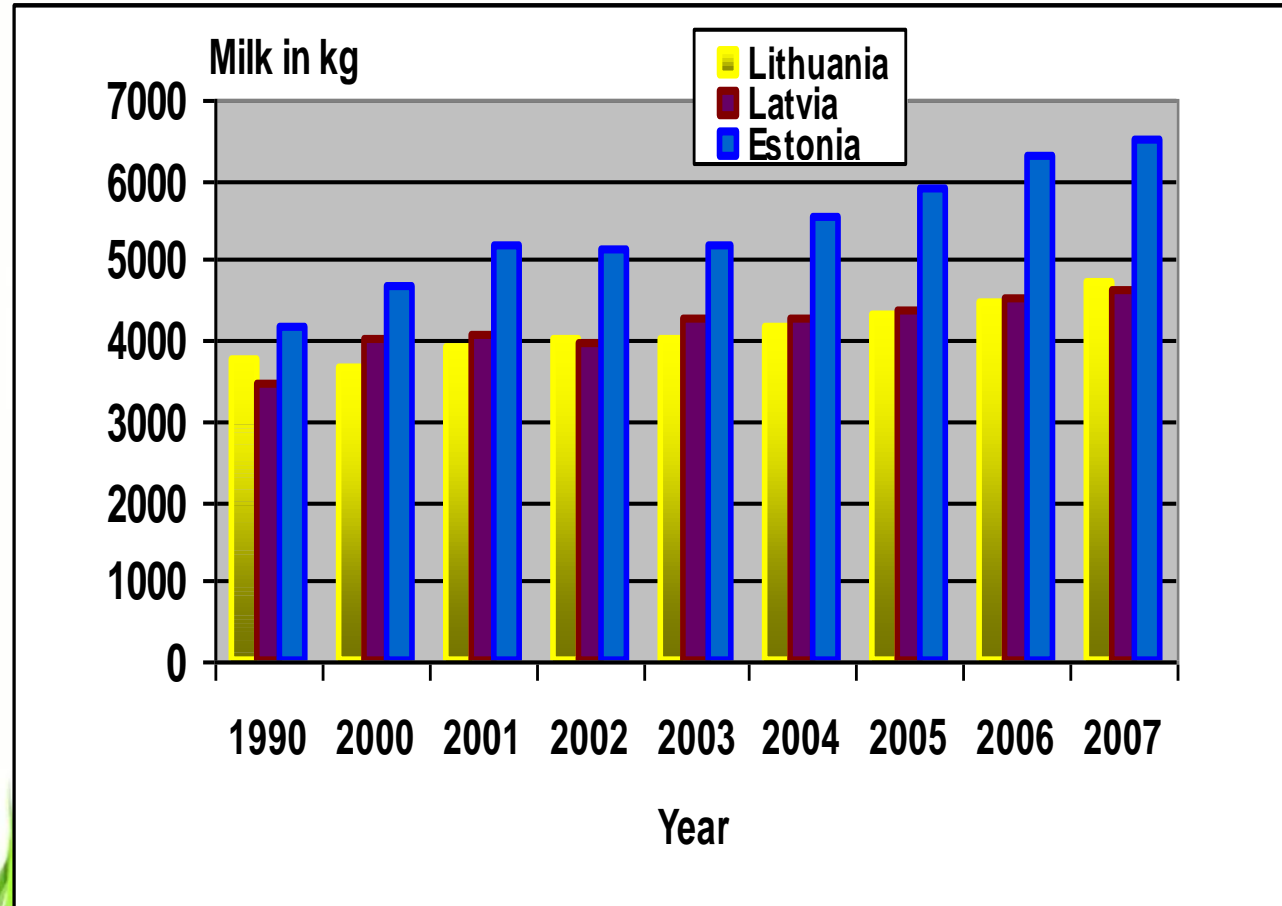


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## Dairy Breeds Productivity

Dairy breeds productivity increased since 2000:

- Lithuania 18 %
- Latvia 14 %
- Estonia 29 %

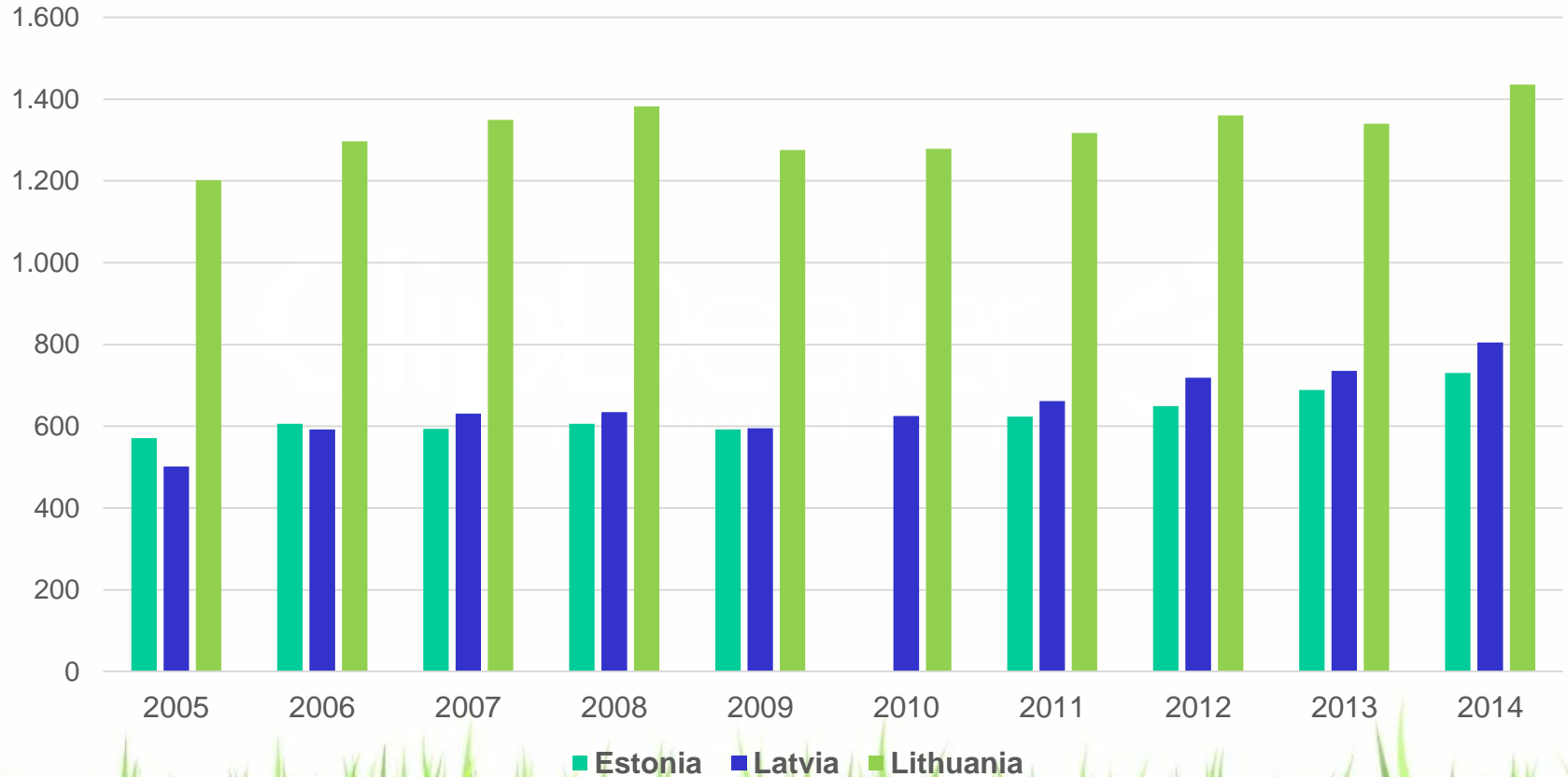




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Total milk production 2005 - 2014, in Baltic countries (thousands tonnes)

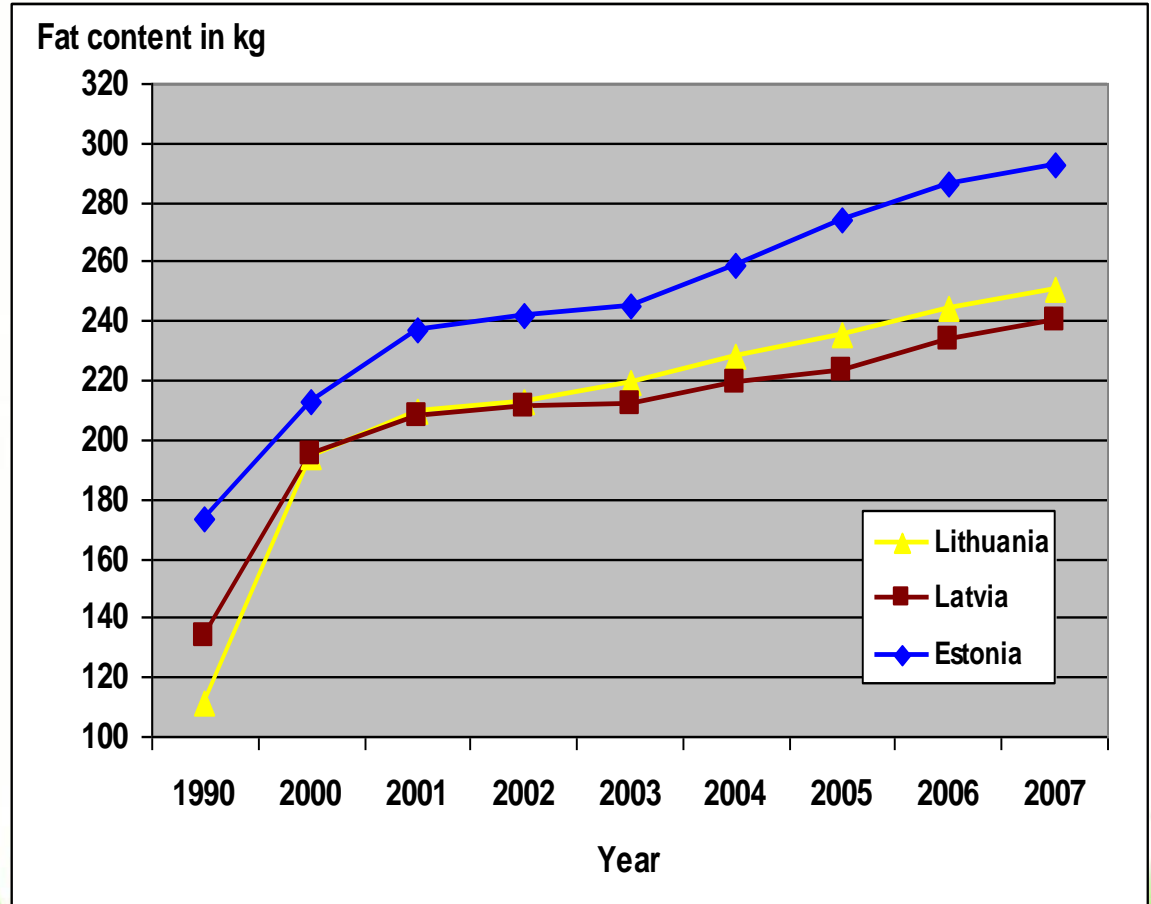


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## Fat Content in Milk

Fat content in milk has increased since 2000:

- Lithuania 23 %
- Latvia 19 %
- Estonia 28 %

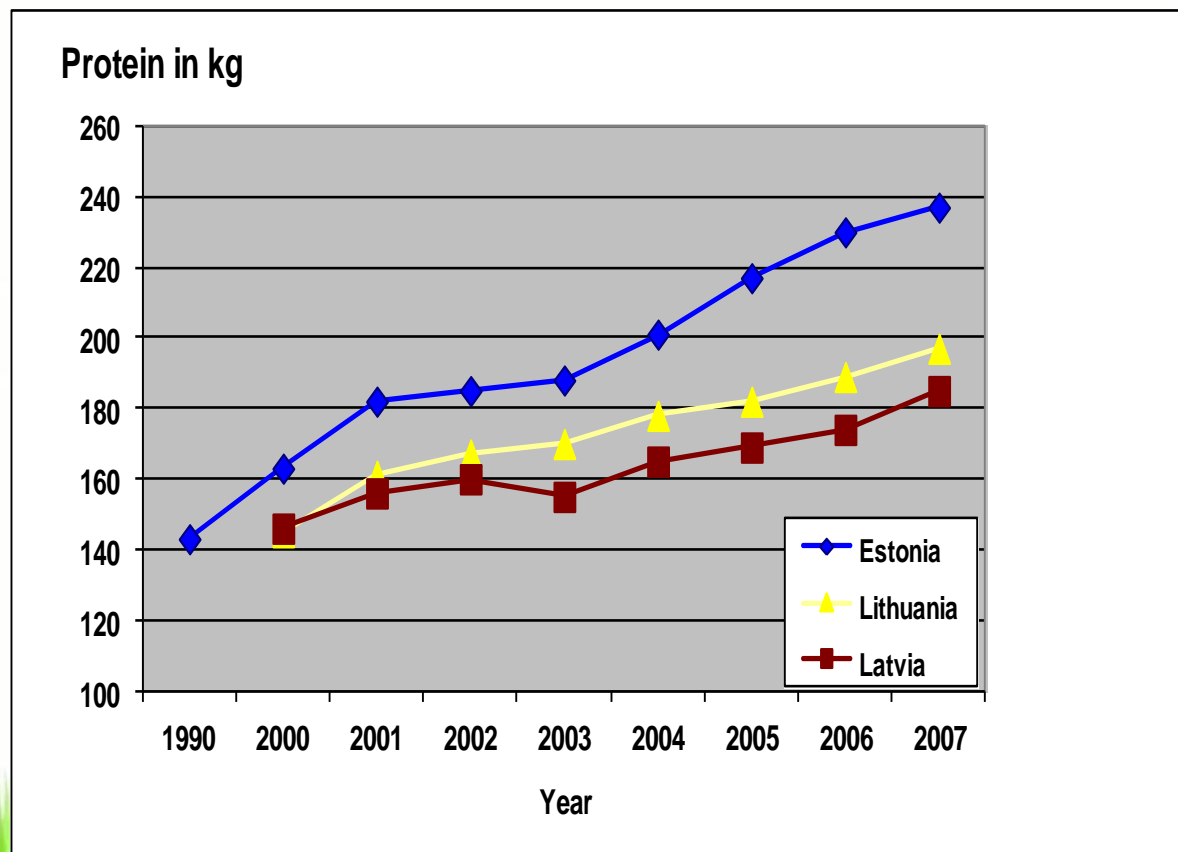


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## Protein Content in Milk

Protein content in milk also has increased since 2000:

- Lithuania 26,39 % (3,36 %)
- Latvia 21,08 % (3,37 %)
- Estonia 40,29 % (3,36 %)

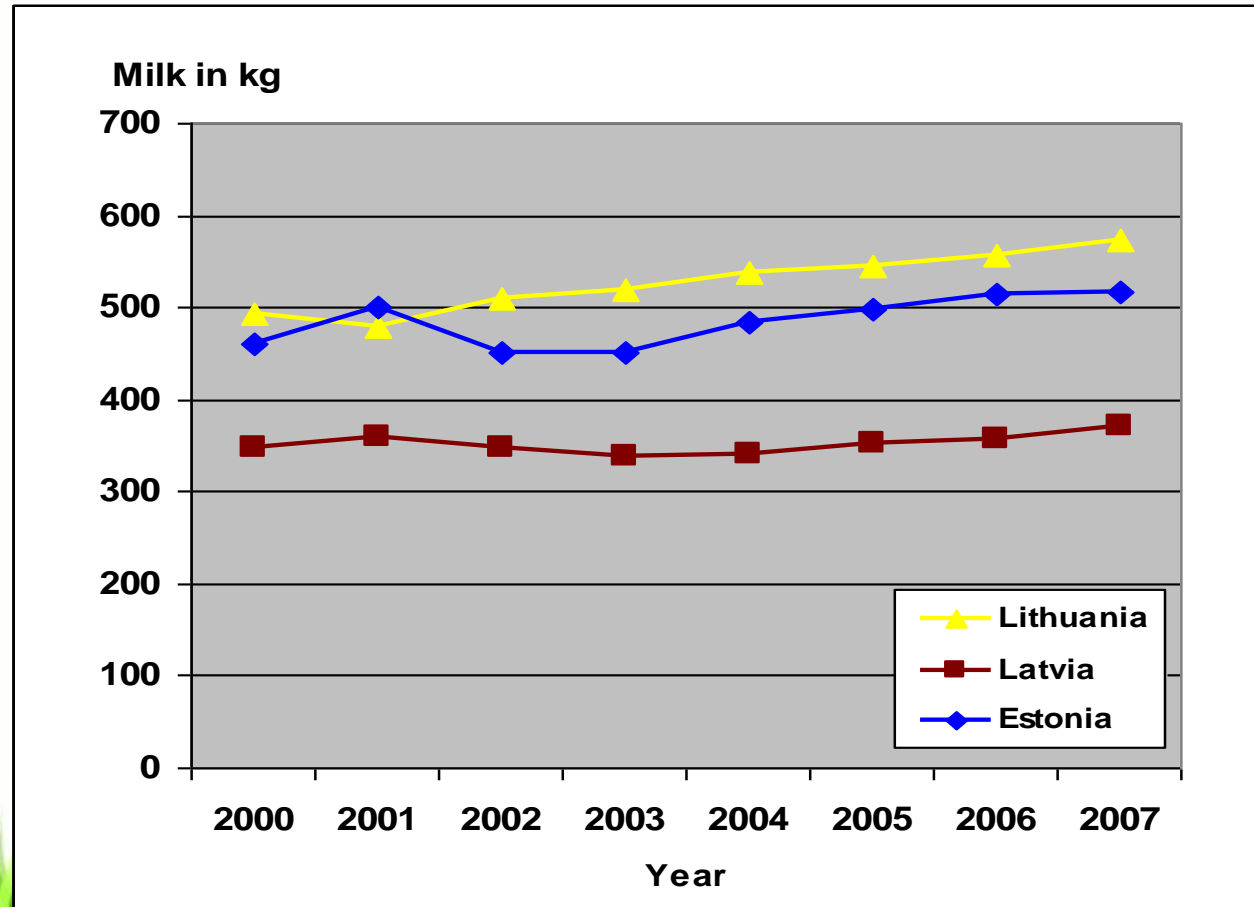


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## Milk Production in 2000-2007 (kg per person)

Milk production per person has been increasing since 2000 in all three countries:

- Lithuania 14 %
- Latvia 6 %
- Estonia 11 %



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## Distribution of cows in local municipalities



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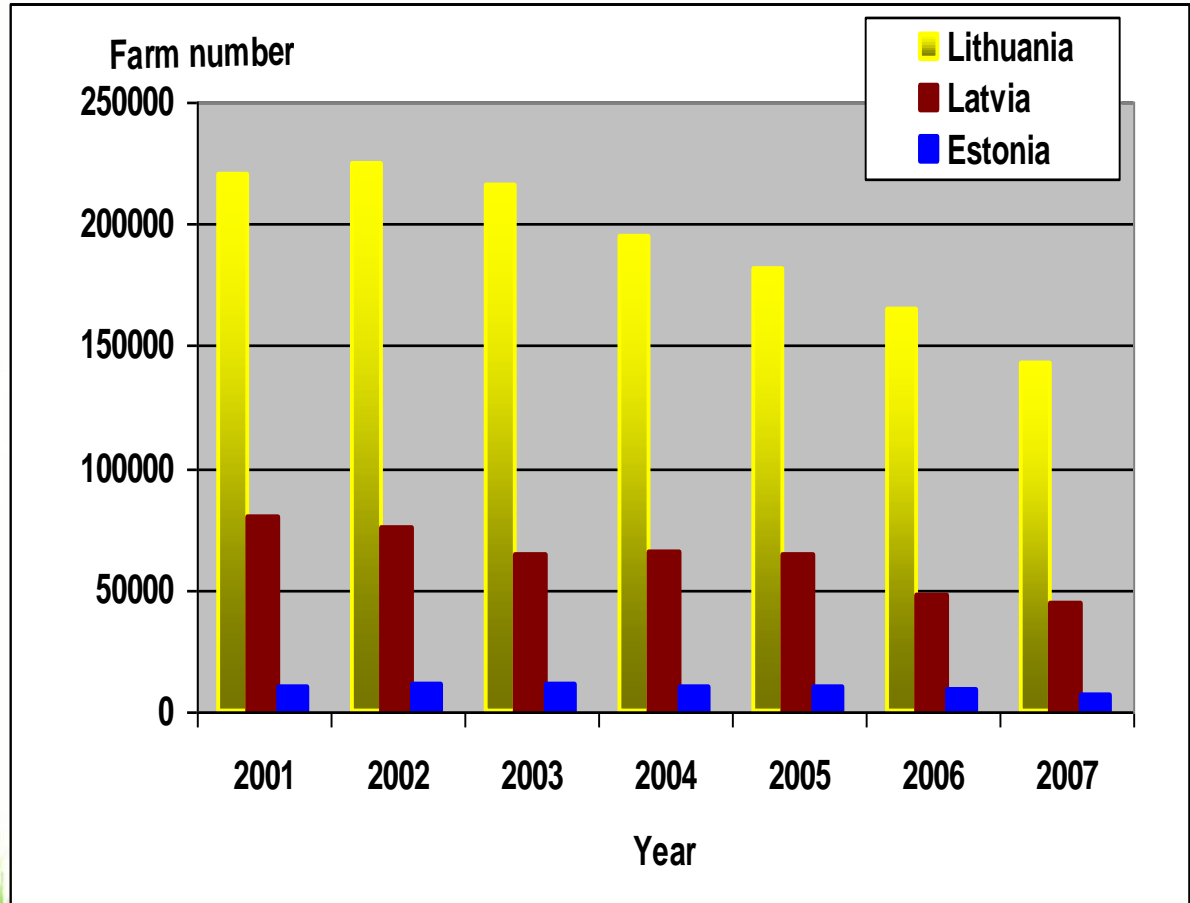
## Number of Dairy Farms

From 2001 until 2007 the number of dairy farms greatly decrease by:

- Lithuania 36%
- Latvia 45%
- Estonia 35%

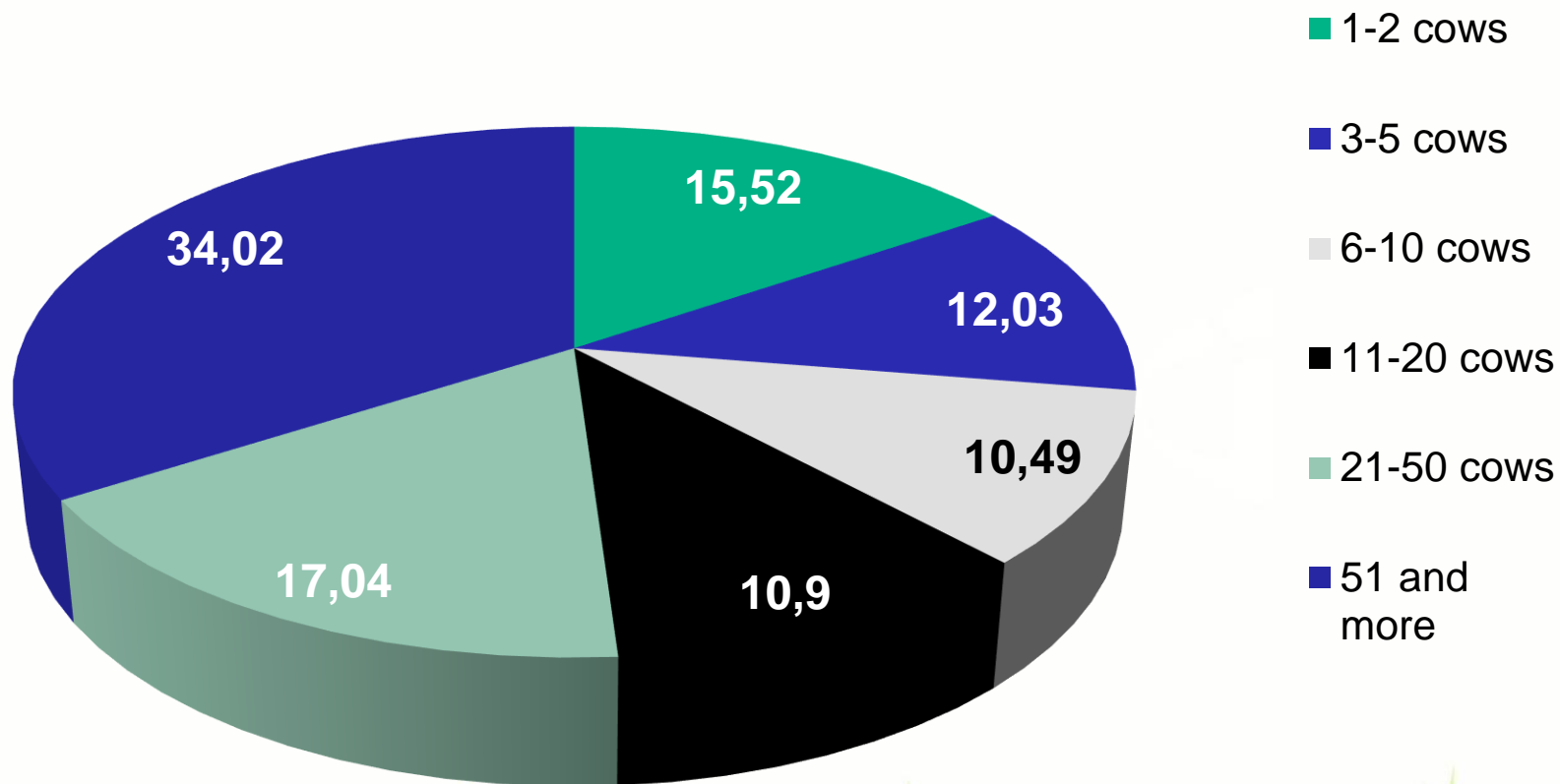
The average number of dairy cattle per farm is:

- Lithuania – 4
- Latvia – 5
- Estonia – 16



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## Number of cows in the farms in Lithuania %

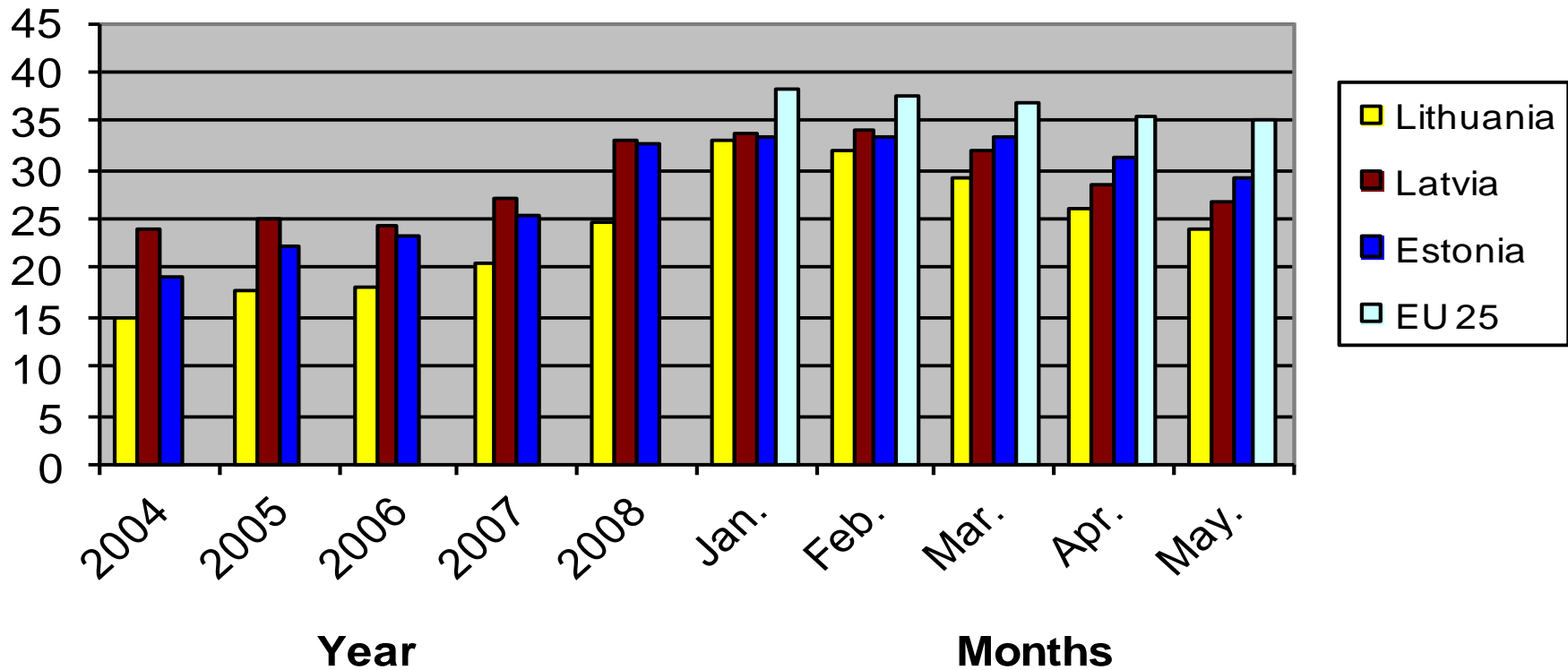


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## Average Milk Prices (€ per 100 kg)

Prices per 100  
kg in €

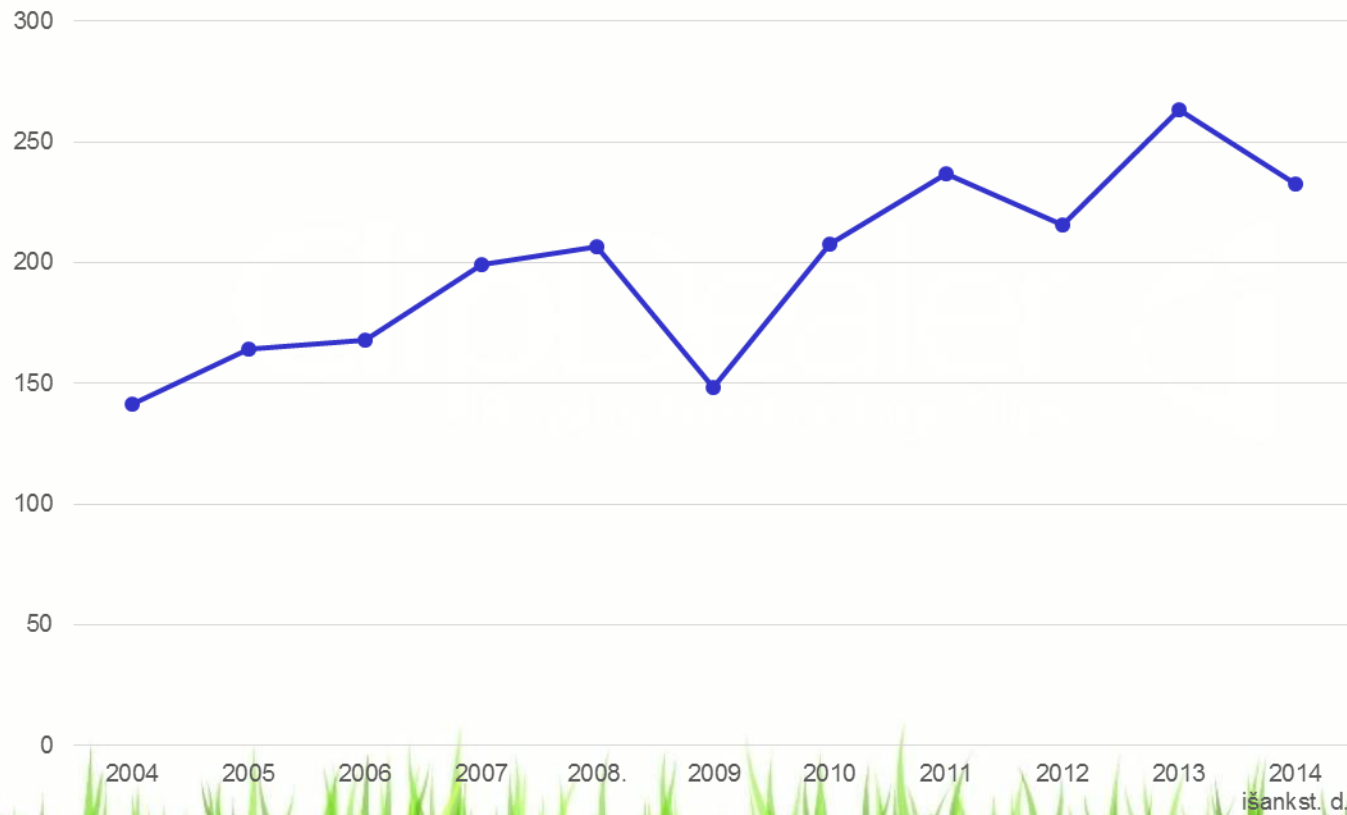




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Average purchase price of milk 2004–2014, EUR/t  
in Lithuania

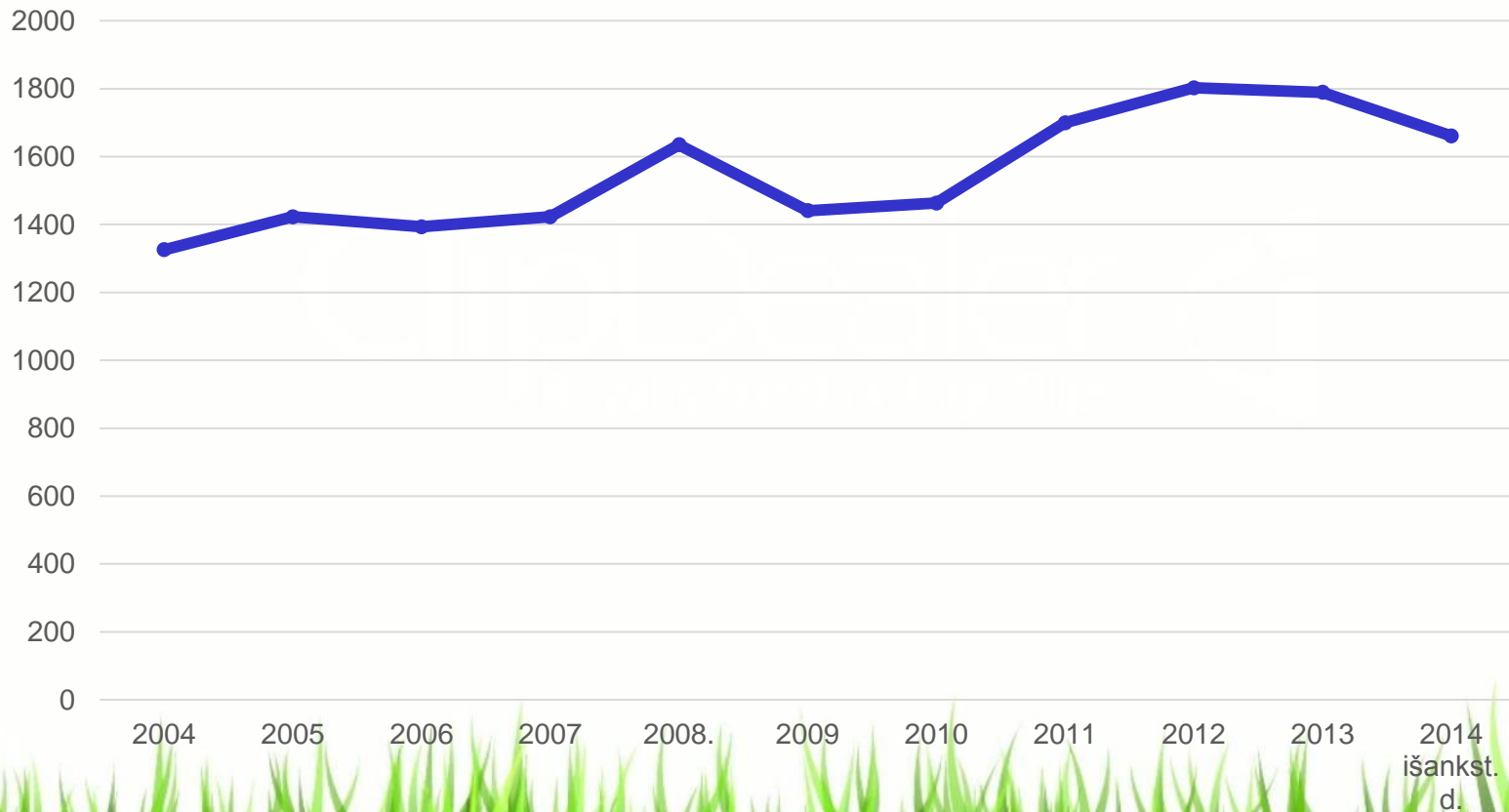


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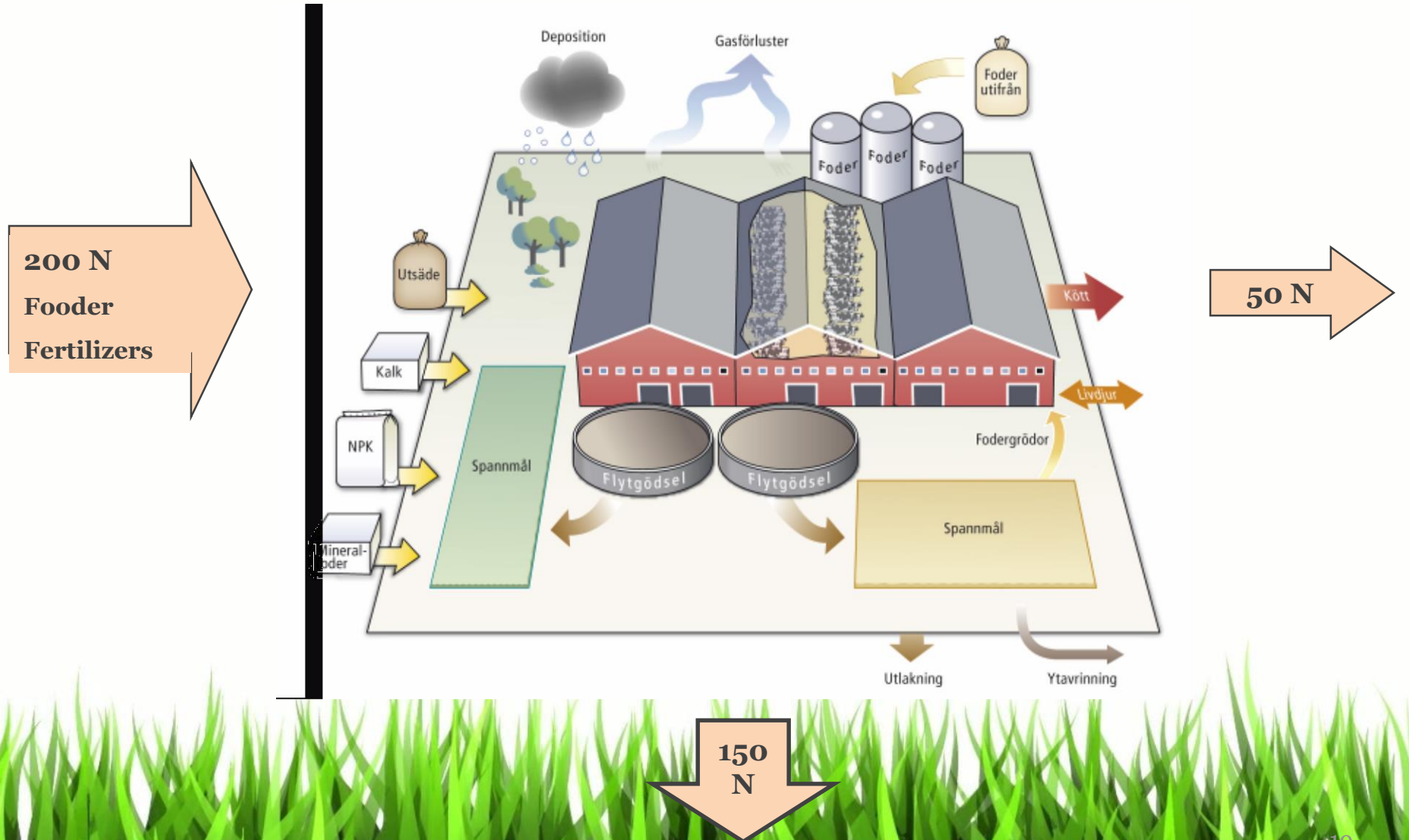
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## Average purchase price of cattle carcasses 2004–2014 , EUR/t in Lithuania



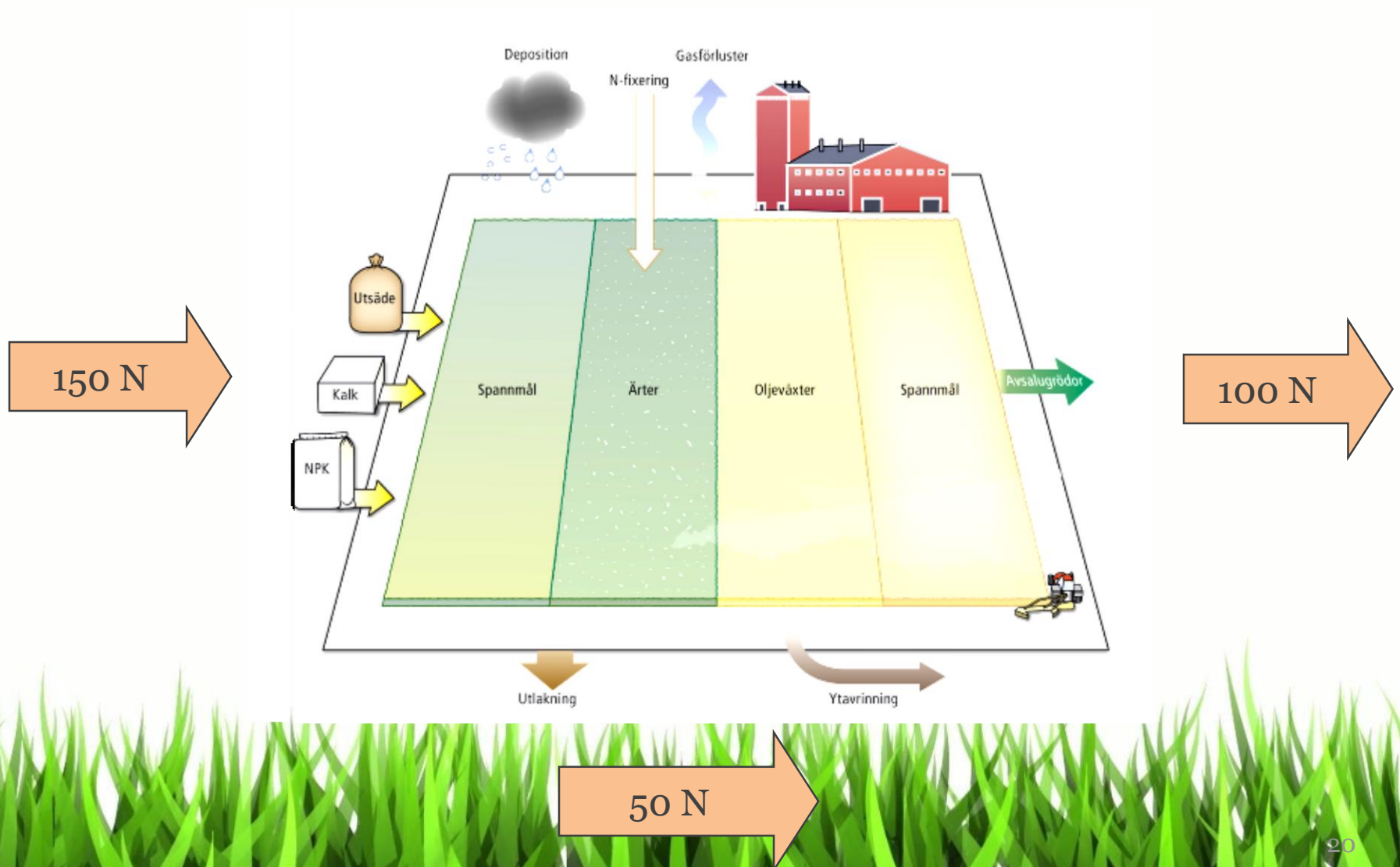
# Specialized animal farm

## Input, output and surplus of Nitrogen kg/ha

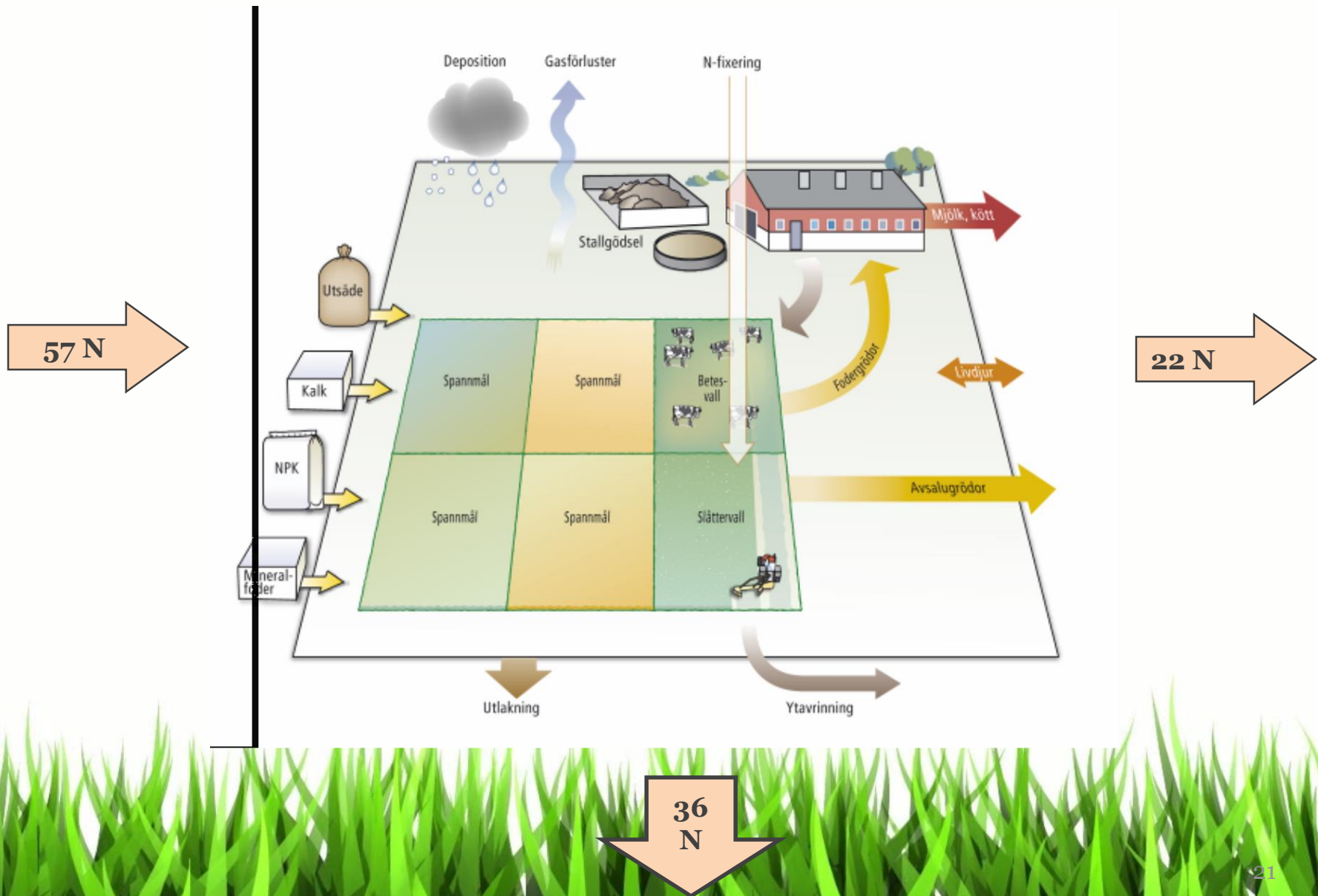


# Specialized crop farm

## Input, output and surplus of Nitrogen kg/ha



# Ecological Recycling Agriculture (ERA)



## Conclusions

- ✓ **Baltic dairy sector will continue to be export driven.**
- ✓ **Although the number of dairy cows and farms is declining in all three Baltic countries, the milk production continuous to grow.**
- ✓ **Balance between animal and crop production need to coordinate (partly by ERA farms)**
- ✓ **Recycling (nutrients and biomass) trough balance between crop production and animal production**
- ✓ **Diverse crop rotation with balance between consuming crops and soil organic building nitrogen fixation clover grassland**





**Thank you for your kind  
attention !**

