

Fertilizer markets with Baltic Sea Region perspective

The EU Fertilizers Market Observatory

5th June 2024

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Fertilizer markets at the Baltic Sea Region (1)

- Fertilizer markets at the Baltic Sea Region can be categorised in two separate markets
 - Nordic fertilizer market
 - Finland, Sweden and with certain limits Denmark
 - European fertilizer market
 - Baltic countries, Germany and Poland

Major fertilizer plants in Europe



Fertilizer markets at the Baltic Sea Region (2)

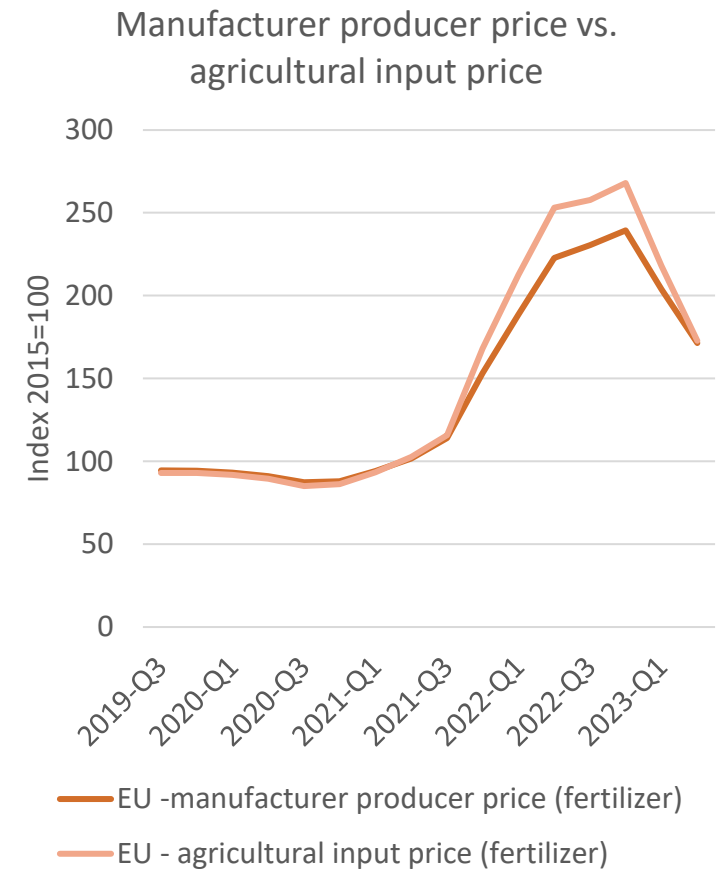
- Most significant separating factor is the form of nitrogen fertilizer
 - in the European fertilizer market nitrogen is utilised in the form of nitrates, urea or ammonium nitrate
 - in the EU, compounds cover approximately 14 %
 - in the Nordic fertilizer market, NPK-compounds play significant role
 - e.g. in Finland, the share of NPK-compounds is 70-80 % of all fertilizer use
 - in Sweden and Denmark relatively less, but above the EU average

Major fertilizer plants in Europe



Fertilizer markets at the Baltic Sea Region (3)

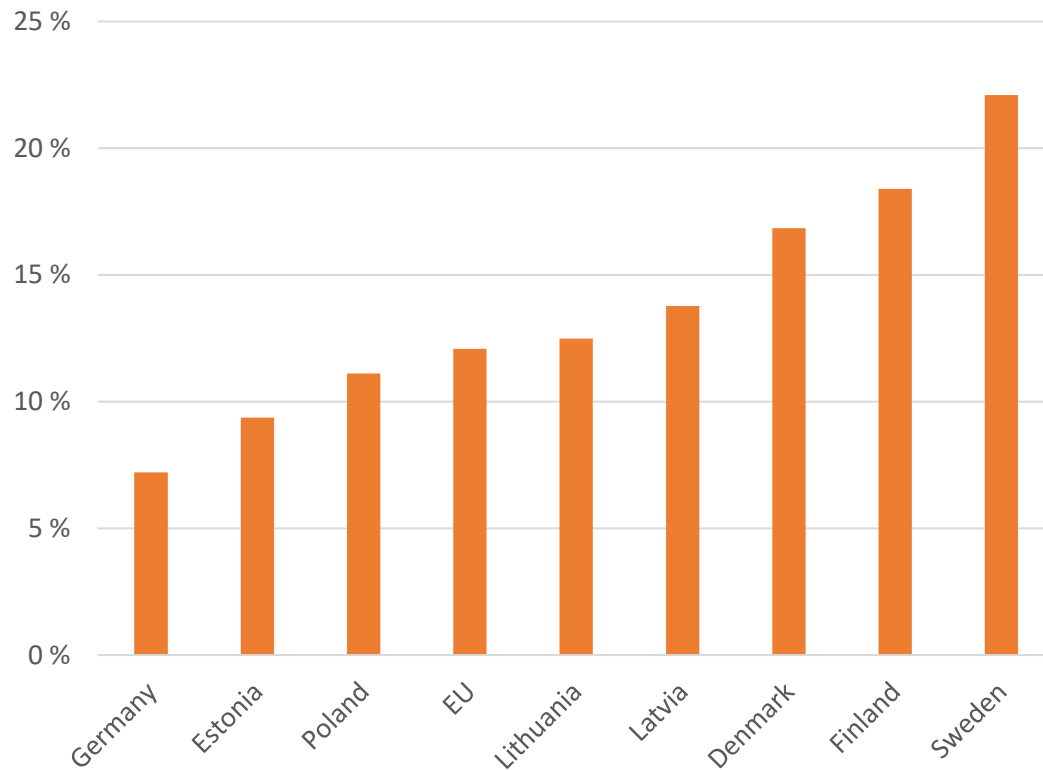
- Nordic market is industry driven
 - retail price of fertilizers increase towards the spring season
 - common retail practise in the Nordics (especially Finland and Sweden)
 - an incentive to farmers to buy fertilizers at the start of the marketing year
 - storages and storage costs at the farm
- Fertilizer market is supply driven
- European market is retail driven
 - retailers have more power over pricing compared to industry
 - storages and storage cost at the retail
- Fertilizer market is demand driven



Source: Eurostat, REINU econ Ltd. own calculations

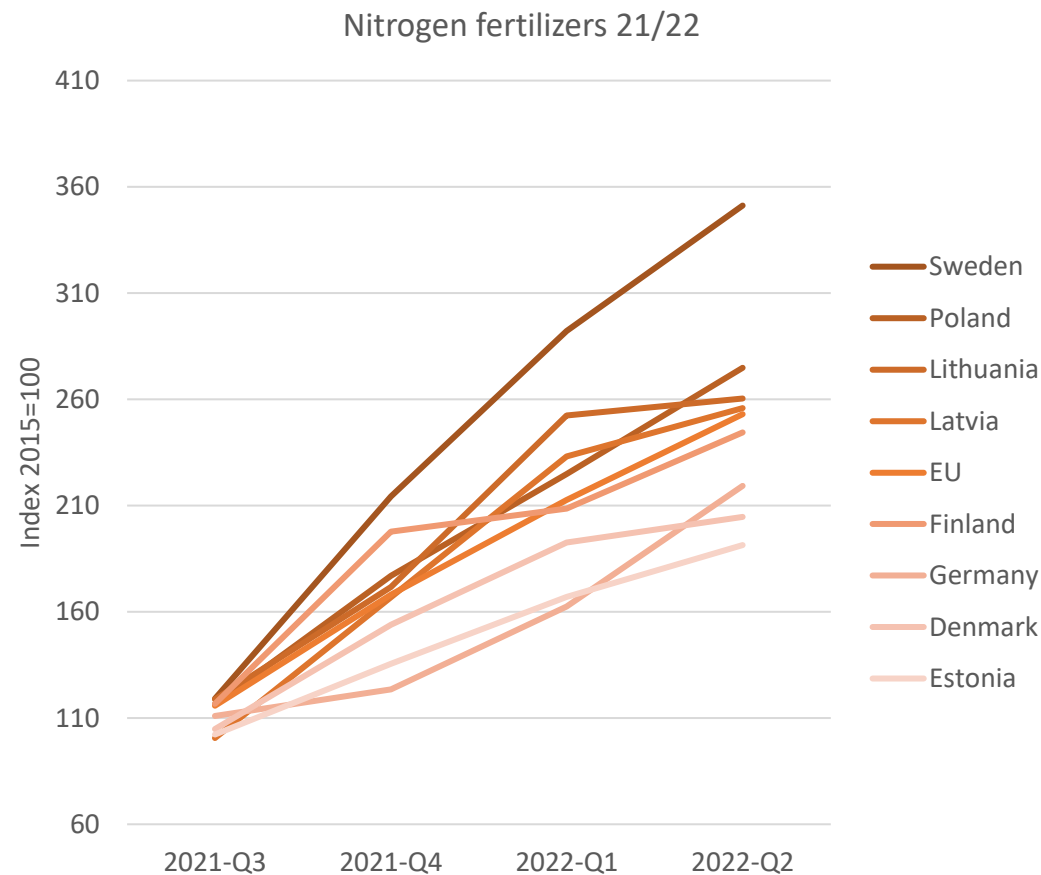
Fertilizer markets at the Baltic Sea Region (4)

Average price development 2015-2023 within the marketing year (Q1/Q3) - nitrogen



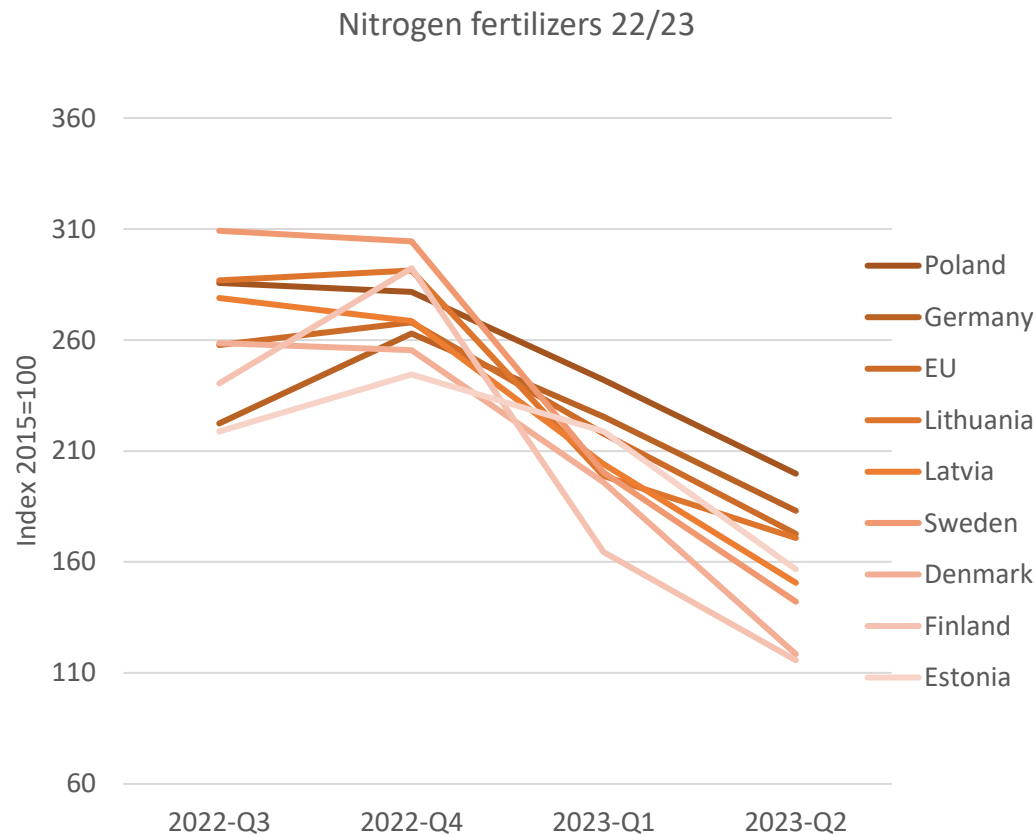
- Nitrogen fertilizer prices on average higher in January-March (Q1) compared to previous July-September (Q3) within the marketing year
- Seasonal pricing highest in Sweden, Finland and Denmark
 - higher price increase an indication of industry-based pricing
- Note: increasing share of winter crops on total crop area reduces seasonal price developments

Fertilizer markets at the Baltic Sea Region (5)



- Prices of nitrogen fertilizers started to increase in all Baltic Sea Region countries during the fall 2021
- Highest price increase in Sweden
 - + 195 % Q2/22 vs. Q3/21
- Lowest price increase in Estonia
 - +87 % Q2/22 vs. Q3/21
- Note: due to indexing (2015=100) actual price levels remain unknown

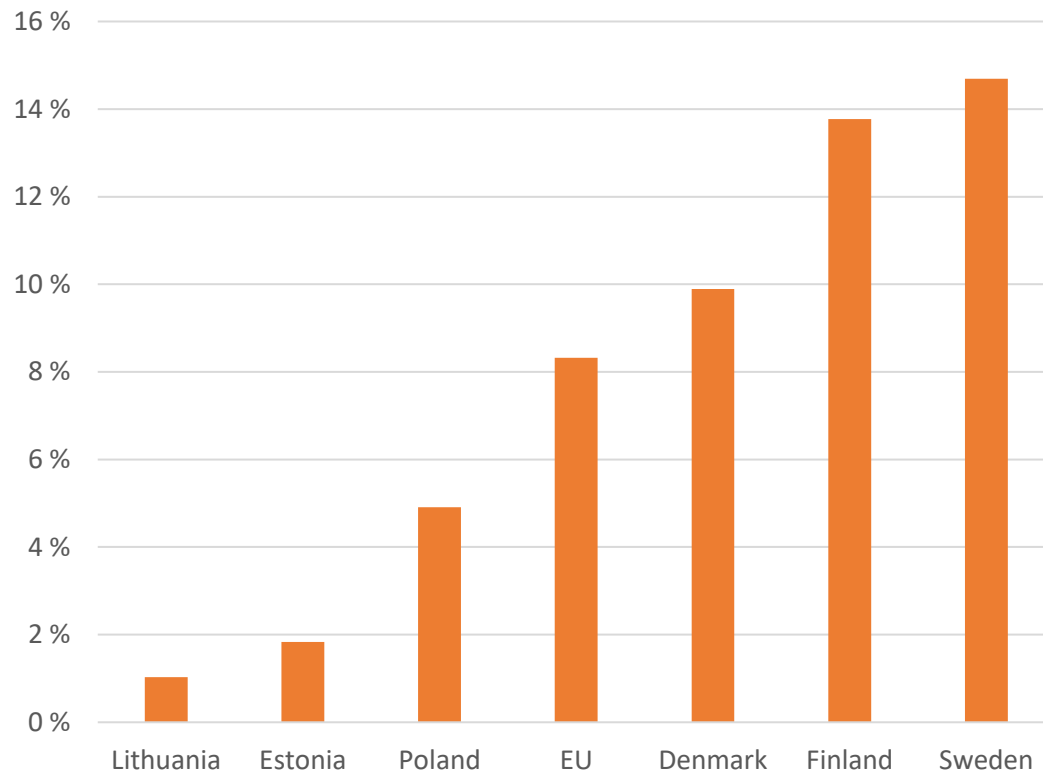
Fertilizer markets at the Baltic Sea Region (6)



- Prices of nitrogen fertilizers started to decrease during the winter 2023
 - in few countries (Estonia, Germany, Finland) price increases continued in Q4/22
- Significant difference in the pace of price decreases
 - Q2/2023 vs. Q4/2022
 - largest price decrease Finland - 60 %
 - smallest price decrease Poland -29 %
- Note: due to indexing (2015=100) actual price levels remain unknown

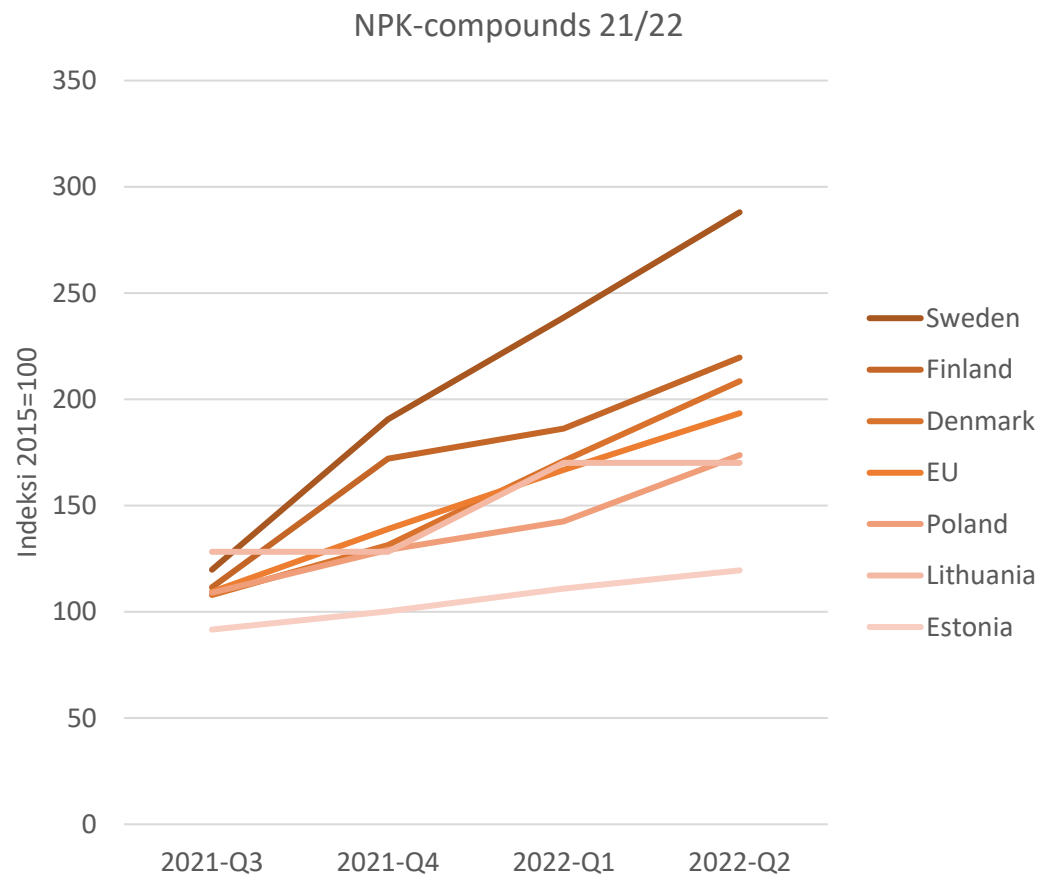
Fertilizer markets at the Baltic Sea Region (7)

Average price development 2015-2023 within the marketing year (Q1/Q3) - NPK



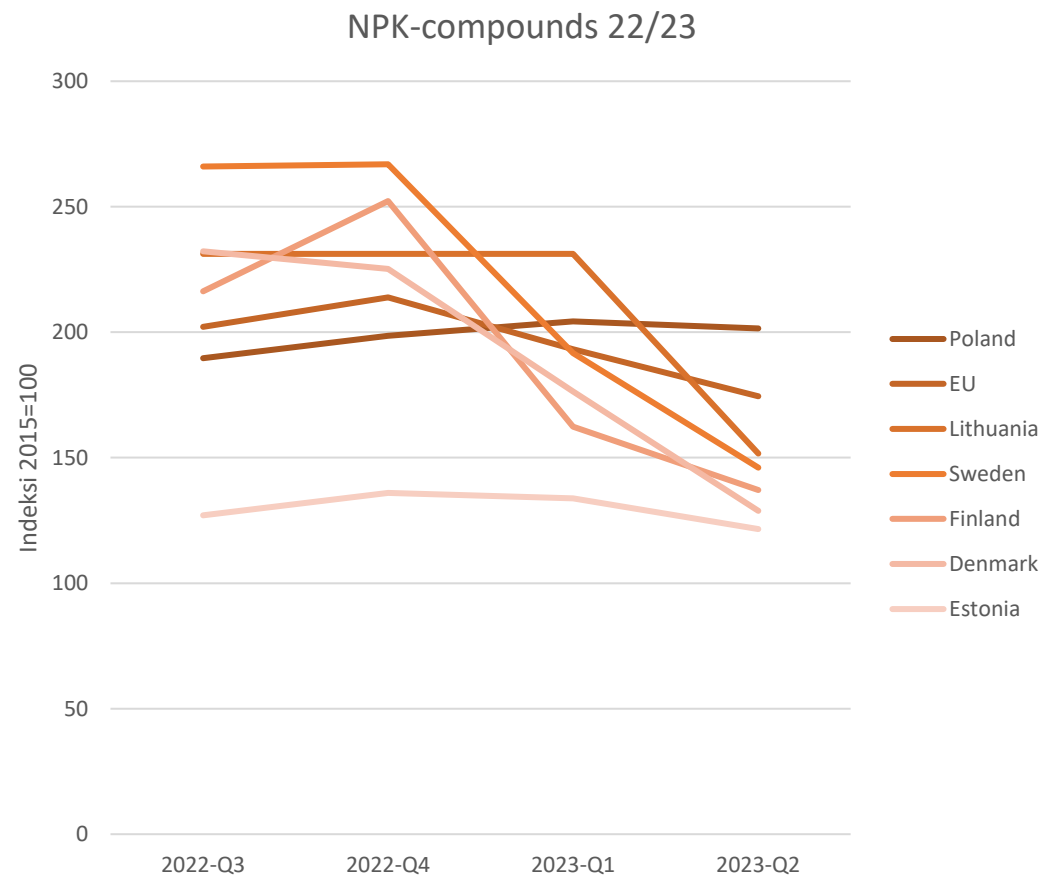
- NPK fertilizer prices on average higher in January-March (Q1) compared to previous July-September (Q3) within the marketing year
- Strong seasonal pricing in Finland and Sweden
 - the importance of NPK-compounds significantly higher
- Almost no seasonality in the Baltics
- Note: increasing share of winter crops on total crop area reduces seasonal price developments

Fertilizer markets at the Baltic Sea Region (8)



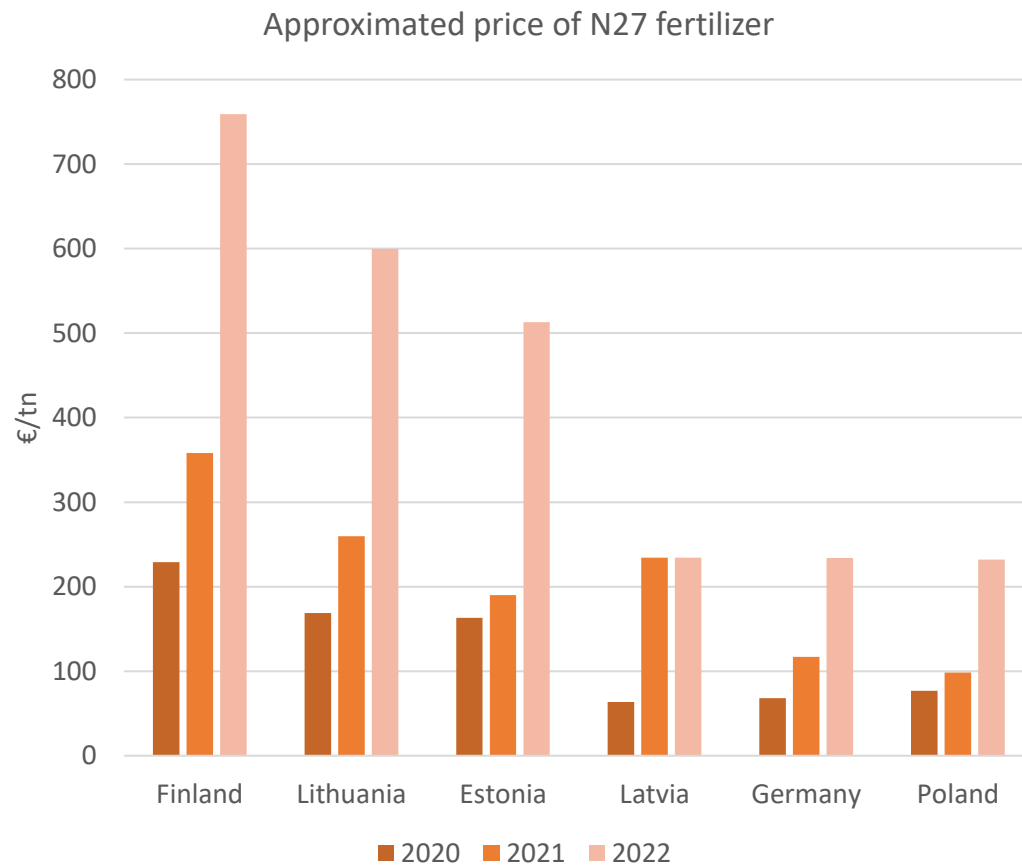
- Prices of NPK fertilizers started to increase in all Baltic Sea Region countries during the fall 2021
- Highest price increase in Sweden
 - + 140 % Q2/22 vs. Q3/21
- Lowest price increase in Estonia
 - + 30 % Q2/22 vs. Q3/21
- Note: due to indexing (2015=100) actual price levels remain unknown

Fertilizer markets at the Baltic Sea Region (9)



- Prices of NPK fertilizers started to decrease during the winter 2023
 - in few countries (Finland, EU average) price increases continued in Q4
- Price development in Estonia and Poland significantly different compared to others
 - Q2/2023 vs. Q4/2022
 - largest price decrease Finland - 46 %
 - price increase Poland +1 %
- Note: due to indexing (2015=100) actual price levels remain unknown

Fertilizer markets at the Baltic Sea Region (10)



- Based on the available price data on different retail-level sales-item compound and nitrogen fertilizers
 - an estimated price of a 27 % nitrogen fertilizer was calculated
- Note: the relative price of nitrogen lower in urea compared to NPK
 - calculated price level only an approximation
 - differences in calculated price levels only an approximation
- Note: lack of data especially in Sweden, Denmark

Conclusions

- Price changes in fertilizer raw materials transmit differently depending on the type of fertilizer (e.g. whether urea or NPK-compound)
 - price development of nitrogen fertilizers has been similar both in the Nordic markets and in the EU average
 - fertilizer price development closely tied to the price development in raw materials
 - price increases within the marketing year are higher in the Nordic countries compared to the EU average
 - for the nitrogen, NPK-compounds are relatively more expensive compared to urea and AN
 - the role of NPK-compounds is more important in the Nordic countries compared to the EU average
 - price of nitrogen is approximately twice as high in Finland compared e.g. to Baltic countries and Germany
- In the overall fertilizer market, the supply of NPK-compounds is limited
 - product alternatives and the number of producers fewer compared to nitrogen fertilizers
 - import competition to the EU internal markets and to Nordic markets significantly weaker compared to nitrogen fertilizers

Recommendations

- Obligation to provide publicly available market information by the fertilizer manufacturers
 - improving the functionality and transparency of the fertilizer market requires publicly available information on sales item-specific prices and sales volumes
- Improving sales item-specific market monitoring
 - sales item based fertilizer prices
 - amount sold of each monitored sales item
 - trade flows of different sales items
- Overall the Fertilizer Market Observatory is an important improvement
 - it needs to be developed to more detailed level

5.6.2024

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