

6TH
INTERNATIONAL
BLACKCURRANT
CONFERENCE
.....
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School of Agriculture of Angers - France



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Born in 1964 in Ballenstedt im Harz, Mathias EBERT grew up and lived in North-East Germany.

1992 - 1997 Studied Economy at the University of Rostock, Germany

1998 - 2002 STEINHAUSER GMBH Ravensburg, Germany (Apple-Juice concentrate, relations with Poland, Italy, Argentina).

2005 - 2015 BINDER GMBH & Co. KG, Herrenberg, Germany (collaboration with 2 Polish companies processing fruits, vegetables, concentrate) - General Manager and Procurement.

2015/ 2016 Manager - EDEKA juices Poland (Sonnländer).

Since 2016 - Market research and commerce of fruit in Poland (HME - Consult)

Since 2007 - Member of the Polish Fruit Juice Associations (KUPS)





Blackcurrants Poland 2017/18



IBA Conference 2018, Angers, France



World production and classification of Poland

Production (IBA) Blackcurrant in Europe and the rest of the world
in .000 tons - average 2011 - 2016 per year



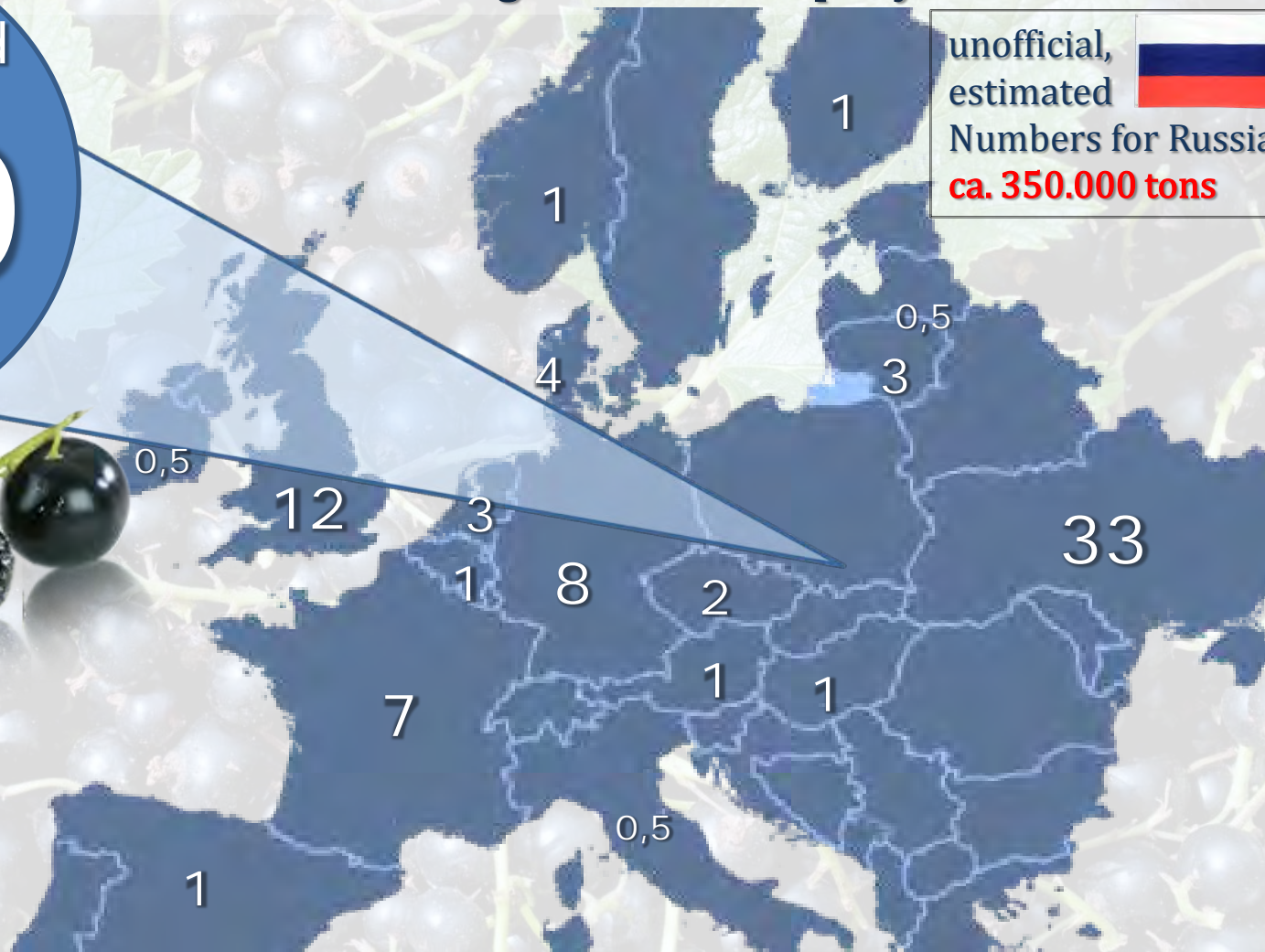
Poland

130

.000 tons



unofficial,
estimated
Numbers for Russia:
ca. 350.000 tons



Another world:

Australia: 0.15

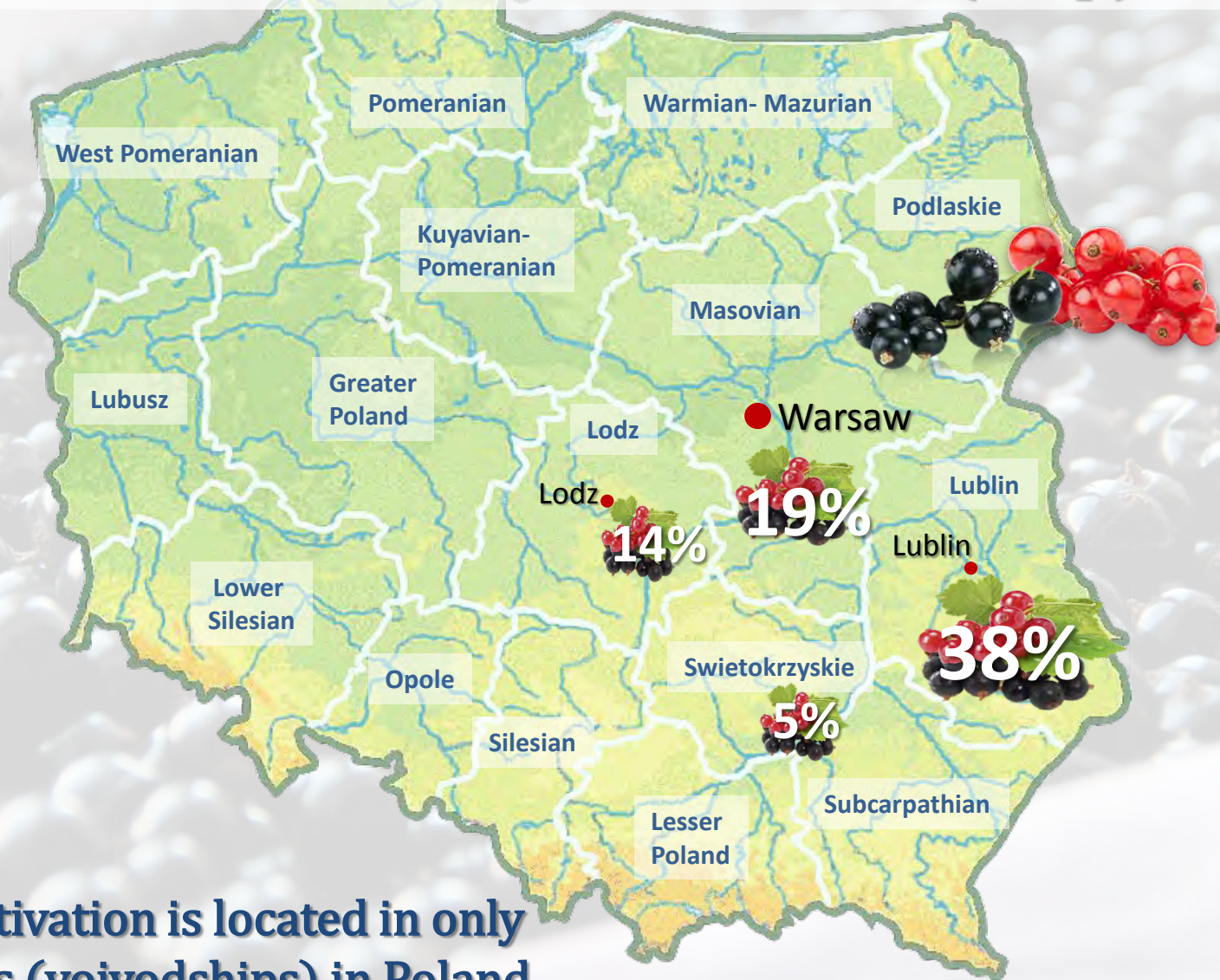
China: 9.0

New Zealand: 10.5

Fruit harvests in Poland 2012 - 2017 in 000. tons

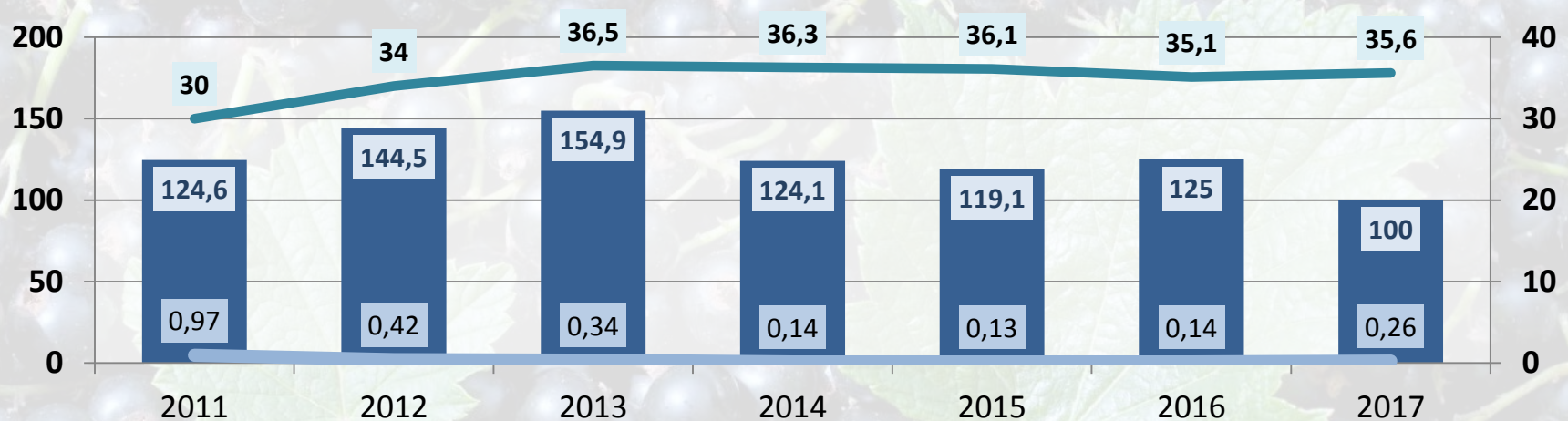
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | Ø 2012-16 | 2017 versus 2016 | 2017 versus Ø 2012-16 |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------------|-----------------------------|
| Apple | 2.877,3 | 3.085,0 | 3.195,3 | 3.145,8 | 3.604,2 | 2.450,0 | 3.181,5 | -32% | -23% |
| Pear | 64,7 | 75,7 | 73,3 | 65,8 | 81,5 | 60,0 | 72,2 | -26% | -17% |
| Prunes | 102,5 | 102,4 | 106,1 | 90,8 | 109,5 | 60,0 | 102,3 | -45% | -41% |
| Sour Cherry | 175,4 | 188,2 | 176,5 | 177,0 | 194,8 | 71,6 | 182,4 | -63% | -61% |
| Sweet Cherry | 41,1 | 47,6 | 48,1 | 49,0 | 53,7 | 20,0 | 47,9 | -63% | -58% |
| Strawberry | 150,2 | 166,0 | 197,0 | 207,0 | 196,9 | 177,1 | 183,4 | -10% | -3% |
| Raspberry | 127,1 | 121,0 | 125,9 | 80,0 | 129,6 | 100,0 | 116,7 | -23% | -14% |
| Currants | 194,5 | 198,5 | 162,6 | 155,0 | 166,1 | 130,0 | 175,3 | -22% | -26% |
| - thereof Black | 144,5 | 154,9 | 124,1 | 120,0 | 125,0 | 100,0 | 133,7 | -20% | -25% |
| - thereof Red | 50,0 | 43,6 | 38,5 | 35,0 | 41,1 | 30,0 | 41,6 | -27% | -28% |
| Gooseberry | 16,3 | 15,0 | 12,4 | 12,1 | 12,5 | 10,0 | 13,7 | -20% | -27% |
| Chokeberry (Aronia) | 51,2 | 57,9 | 43,4 | 38,2 | 49,2 | 45,0 | 48,0 | -9% | -6% |

Distribution of plantation of Black- and Redcurrants in Poland in 2016 (map)

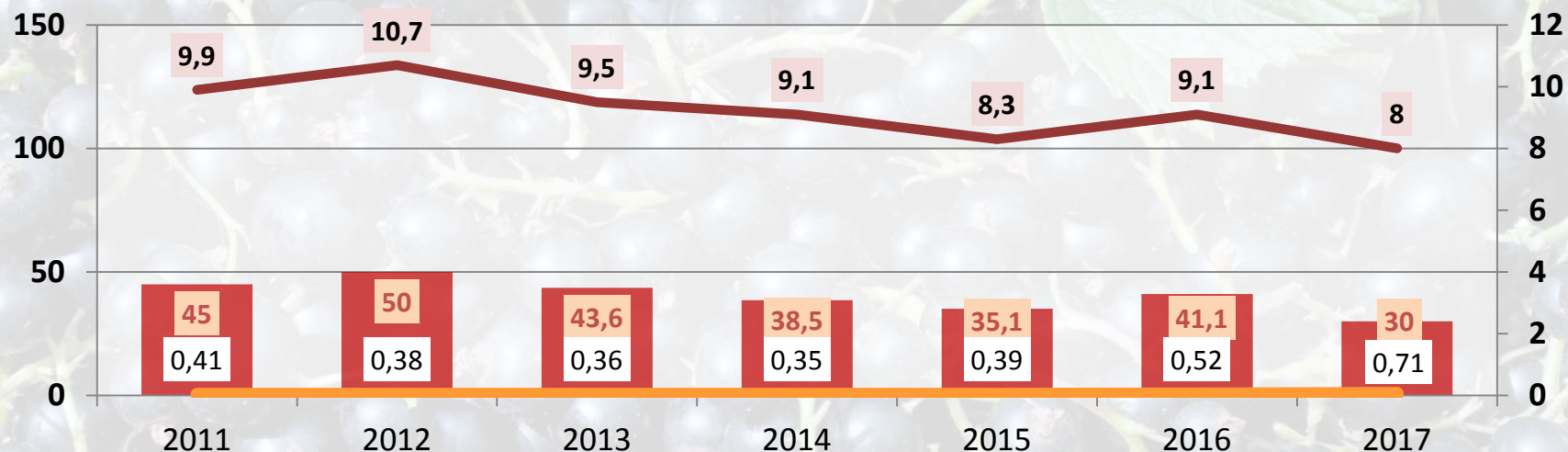


76% of cultivation is located in only 4 provinces (voivodships) in Poland.

Red & Black Currant - crop, area and prices 2011-2017



Blackcurrant- harvest in 000 to Blackcurrant- acreage in 000 ha Blackcurrant- Factory price EUR/kg

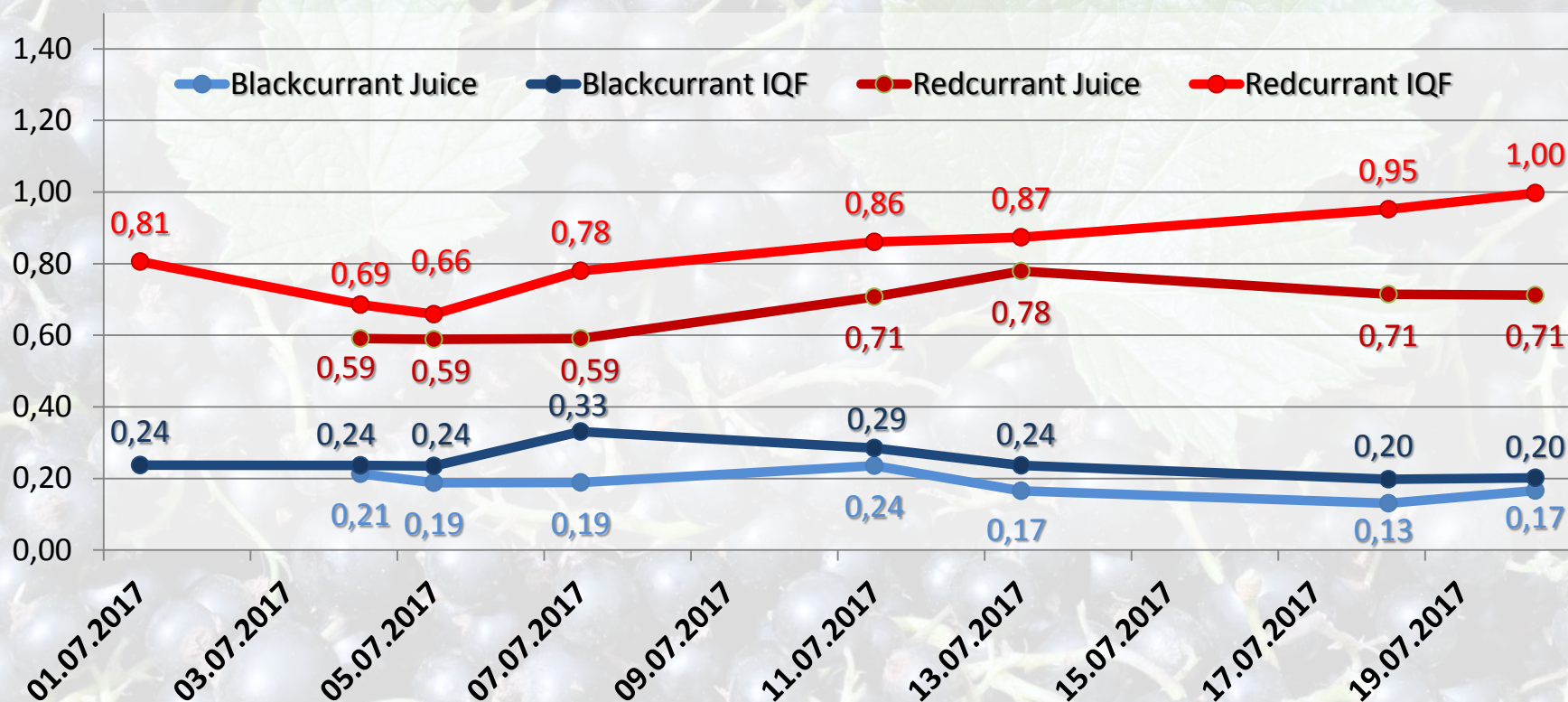


Redcurrant - harvest in 000 to Redcurrant - factory price EUR/kg Redcurrant - acreage in 000 ha

Distribution of blackcurrant crops in Poland according their use in .000 tons – the balance

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017* |
|--|------------|------------|--------------|------------|--------------|-------------|
| Harvest quantity acc. to GUS* | 145 | 155 | 124 | 120 | 125 | 100 |
| 1) Fresh market | 5 | 4 | 5 | 5 | 4 | 4 |
| 2) Export | 7 | 7 | 7,5 | 8 | 7 | 6,5 |
| 3) Processing | 94 | 130 | 113 | 125 | 124,4 | 85 |
| - Juice Concentrates & Juice NFC | 48 | 84 | 78 | 85 | 78,4 | 45 |
| <i>(Processed volume of Concentrate ca.)</i> | 8,6 | 15,0 | 13,9 | 15,2 | 14,0 | 8,0 |
| - Froozen IQF | 31 | 31 | 25 | 32 | 35 | 30 |
| - Others | 15 | 15 | 10 | 8 | 11 | 10 |
| Total 1+2+3 (Balance) | 106 | 141 | 125,5 | 138 | 135,4 | 95,5 |
| DELTA | 39 | 14 | -1,5 | -18 | -10,4 | -4,5 |

Price development in the season 2017 for Black & Redcurrants for processing in Poland delivered factory in EUR/ kg



Data source: Press releases 2017 and own surveys

The purchase of Currants in Poland - structure and organization

Due to the fragmented fruit economy in Poland (estimated at 15,000 blackcurrant farms), it is bought in thousands of outlets (about 3-4,000 across Poland of different sizes).

A buy-up place has up to 200 suppliers (how to execute traceability?) It buys up to 100 tons a day and up to 2,000 tons in a season.

Only very large growers do distribute their fruits themselves and directly.



The purchase for IQF processing, fresh market and export takes place in plastic boxes.

Juice quality is delivered in large crates about 200 kg.

The harvest of Currants in Poland

Manual harvesting does not take place at all or only for selected qualities.

As a rule, every farm, even if it is under 5 hectares, has its own harvester or rents one.

From high tech "Made in Poland" (Weremczuk, Jagoda) to self-made everything is used.



Popular varieties in the cultivation of blackcurrants in Poland- I.

- Until the beginning of the 2000's did dominated the old varieties in Poland, such as "Ben Lomond" and "Titania" and headed by "Ojebyn", an old Swedish variety, which was registered in the state register in 1990, were very frost resistant and therefore in Poland until today successful.
- Mid-2000s followed by Ben Benis, Ben Alder, Ben Tirran and Ben Connan from the Ben series.
- Recently, other varieties were introduced to the cultivation: Polish "Tiben", "Tisel", "Ruben", "Tines" and "Ores" and Scottish "Ben Hope" and "Ben Gairn".



„Ben Lomond“



„Bona“

- The varietal development reflects the strong orientation of the exploitation of the fruit in the industry - only the cultivar "Bona", which is cultivated also in Poland, corresponds completely to today's requirements for currants for the fresh market.



„Tisel“

Popular varieties in the cultivation of blackcurrants in Poland- II.

The currently preferred cultivars are characterized by a high yield per hectare and a good yield in the mechanical harvest:

| Variety | Yield tons/ha | Yield versus Standard % | Weight of 100 fruits In grams | Yield at mechan. harvest % |
|-----------|------------------|-------------------------------|-------------------------------------|----------------------------------|
| "Tisel" | 9,9 | 190 | 102,4 | 98,2 |
| "Ojebyn" | 5,2 | 100 | 85,6 | 98 |
| "Tines" | 6,4 | 122 | 136,8 | 97,6 |
| "Titania" | 5,7 | 108 | 108,9 | 95,6 |
| "Ores" | 5,8 | 112 | 104,8 | 96,9 |
| "Ruben" | 8,3 | 158 | 120,8 | 96 |
| "Tiben" | 7,9 | 151 | 97,4 | 97,3 |

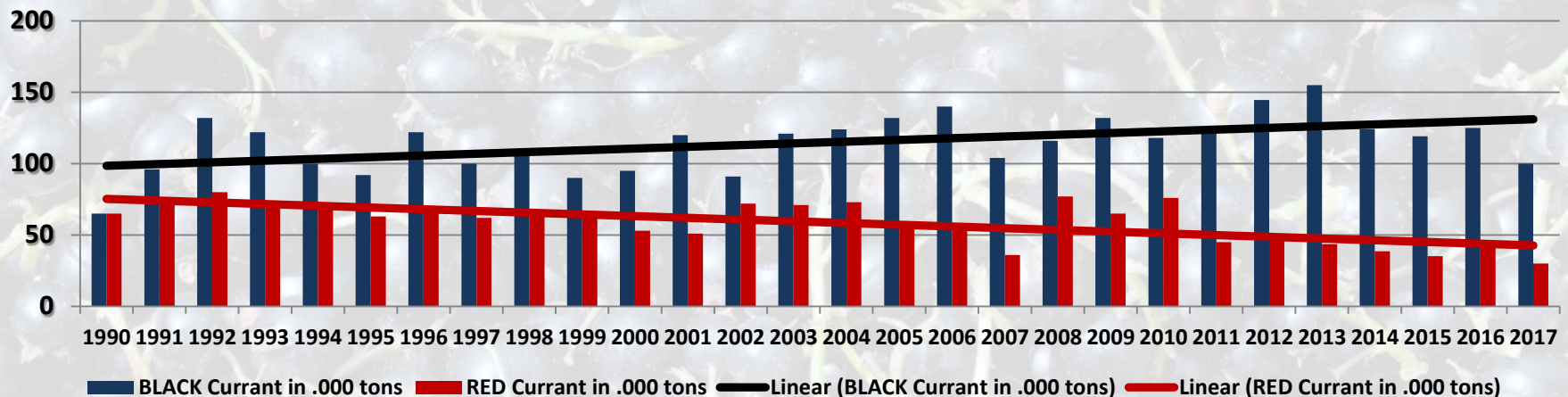
Excursus: History of the cultivation of blackcurrants in PL

- 1960: Acreage 6,000 ha, production approx. 25,000 tons.
- End of the 70s: Acreage 9,000 ha, approx. 40,000 tons.
- Beginning of the 90s: Acreage over 25,000 ha, up to 90,000 tons harvested year by year.
- Demand for more and more volume through a targeted expansion of the processing sector with juice and IQF processing facilities, which had already been promoted before the end of communism.
- Further development of cultivation technology: higher yielding, resistant varieties, optimized possibilities of mechanical harvesting.

Excursus: History of the cultivation of blackcurrants in PL

- From the mid-90's, blackcurrant crops increased from less than 100,000 tons per year to the current average of 125,000 tons per year.
- From 2009: (KSPCP) Krajowe Stowarzyszenie Plantatorów Czarnych Porzeczek founded as an organization. Affiliated to IBA (International Black Currant Association).
- Its members are about 50 growers: 4 producer groups and the remainder individual growers, representing only about 4,000 ha of cultivated area (13%).
- 50% of all growers are smaller than 5 ha, in the majority as a sideline (part-time farmer). More than 70% of cultivation uncontrolled and statistically poorly recorded.

Long-term trend in the cultivation of red and black currant in Poland



Example calculation – cost/ profitability of growing 1 hectare of blackcurrants in Poland in 2017

The following calculation was created in November 2017 by:



Mazowiecki Ośrodek
Doradztwa Rolniczego
z siedzibą w Warszawie

“MAZOVIAN CENTER FOR AGRICULTURAL ADVICE”

- Yield: 4,7 tons per hectare, total farm size 10 hectares
- Sold exclusively to the industry for 0.26 euro-cents per kg (2017 av.)
- Mechanical crop by harvester
- Additional payment from the Ministry of Agriculture in 2017 per hectare:

| | |
|---|-------------------------------------|
| Uniform area payment: | 461,55 PLN / ha (109,50 EUR) |
| Payment for the greening : | 309,77 PLN / ha (73,50 EUR) |
| Payment for production of blackcurrant: | 172,02 PLN / ha (41,00 EUR) |
| TOTAL: | 943,34 PLN / ha (224,00 EUR) |

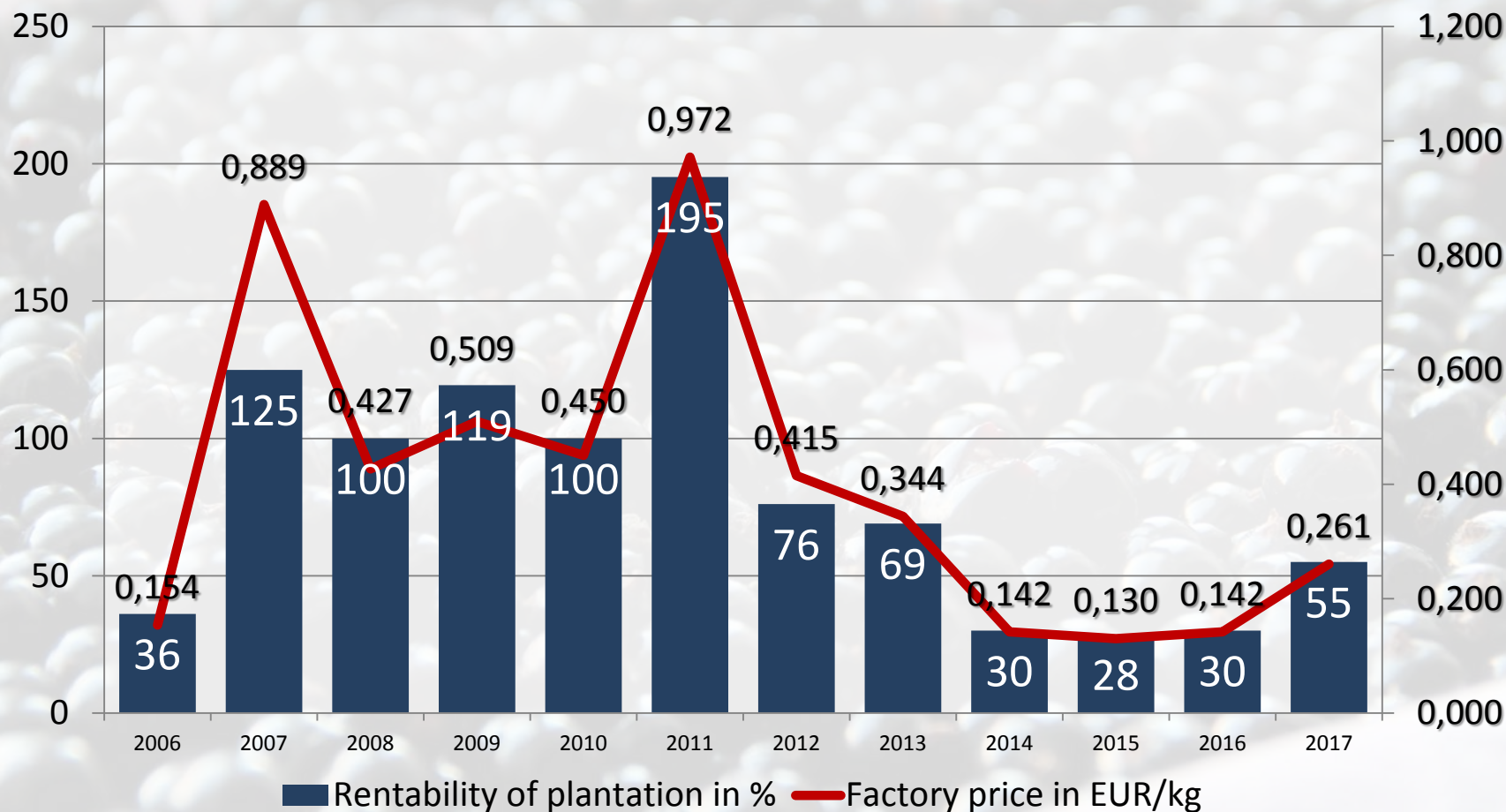
COST ACCOUNTING

| | | unit | price | quantity | PLN | EUR |
|-----------|--|------|----------|----------|------------------|-----------------|
| A.1 | Main production blackcurrant | kg | 1,00 | 4.700 | 4.700,00 | 1113,74 |
| A | TOTAL VALUE OF THE PRODUCTION | | | | 4.700,00 | 1.113,74 |
| B.1 | sodium | kg | 3,31 | 100 | 331,00 | 78,44 |
| B.2 | phosphorus | kg | 4,06 | 20 | 81,20 | 19,24 |
| B.3 | potassium | kg | 2,57 | 150 | 385,50 | 91,35 |
| B.4 | leaf fertilizer | PLN | 200,00 | 1 | 200,00 | 47,39 |
| B | TOTAL COST OF FERTILIZATION | | | | 997,70 | 236,42 |
| C.1 | Roundup | l | 28,00 | 2,50 | 70,00 | 16,59 |
| C.2 | Zato WG | kg | 615,00 | 0,20 | 123,00 | 29,15 |
| C.3 | Penncozeb 80 WP | kg | 28,21 | 2,00 | 56,42 | 13,37 |
| C.4 | Ortus 0,5 SC | l | 168,00 | 1,50 | 252,00 | 59,72 |
| C.5 | Switch 62,5 WG (start of blooming) | kg | 484,00 | 0,80 | 387,20 | 91,75 |
| C.6 | Calipso 480 SC | l | 630,00 | 0,15 | 94,50 | 22,39 |
| C.7 | Bio stimulators | | 300,00 | 1,00 | 300,00 | 71,09 |
| C | TOTAL COST OF PLANT PROTECTION | | | | 1.283,12 | 304,06 |
| D.1 | Contract work for specialist work | | 1400,00 | 1 | 1.400,00 | 331,75 |
| D | TOTAL COST OF CNTRACT WORK | | | | 1.400,00 | 331,75 |
| E.1 | 1/10 Cost for installation of irrigation | | 1.800,00 | 1 | 1.500,00 | 355,45 |
| E.2 | 1/10 Cost for creating the plantation | | 1.322,00 | 1 | 1.268,00 | 300,47 |
| E | OTHER DIRECT COST | | | | 2.768,00 | 655,92 |
| AA | TOTAL DIRECT COST (B+C+D+E) | | | | 6.448,82 | 1.528,16 |
| F.1 | Gen. Farm costs (10% of direct costs) | | | | 644,88 | 152,82 |
| F.2 | Cost of working with your own tractor | Mh | 73,23 | 30 | 2.196,90 | 520,59 |
| F.3 | Harvester- Service | Mh | 200,00 | 5 | 1.000,00 | 236,97 |
| BB | TOTAL INDIRECT COST (F) | | | | 3.841,78 | 910,37 |
| CC | TOTAL TOTAL COST | | | | 10.290,60 | 2.438,53 |
| | Cost of 1 KG Blackcurrant | | | | 2,19 | 0,52 |
| | Profit w/o additional payment | | | | -5.590,60 | -1.324,79 |
| | Add. Payment from Ministry of Agricuture | | | | 943,34 | 223,54 |
| | Profit | | | | -4.647,26 | -1.101,25 |
| | Rentability factor | | % | | | 0,55 |



For 1 Hectare Area

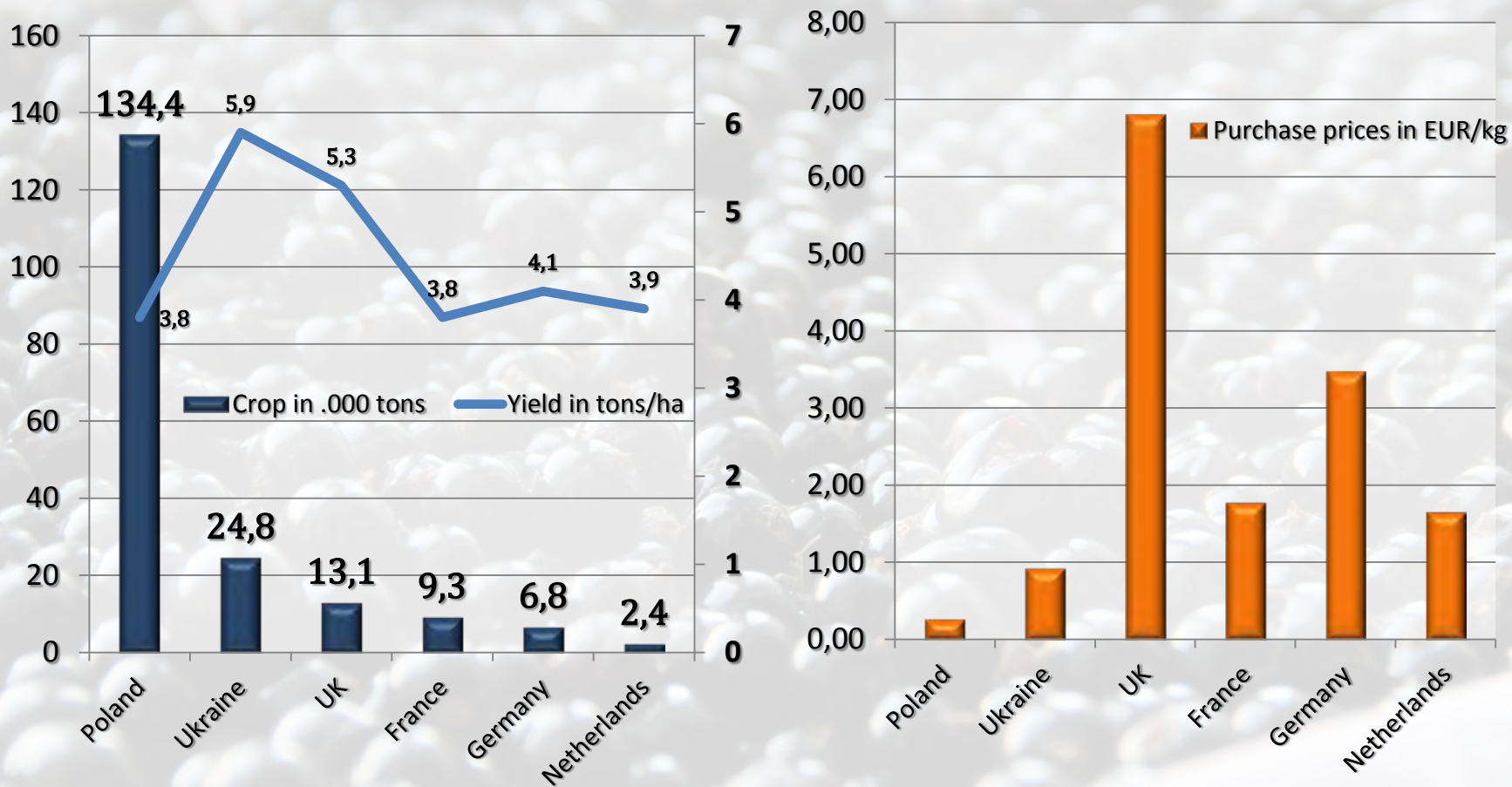
Total profitability of cultivation of Blackcurrants in Poland



Data source: Based on data from INSTITUTE OF AGRICULTURAL AND FOOD INDUSTRY - National Research Institute of Poland (IERiGŻ), Warsaw

Cultivation of blackcurrants

(average numbers 2012 - 2016) in the EU



The future of currants cultivation in Poland:

That way?



A landscape photograph showing a cleared field with a forest in the background and a blue sky with clouds. The foreground is a mix of brown soil, dry grass, and some green patches. The middle ground is a flat, cleared area. The background is a dense line of green trees under a bright blue sky with a few white clouds.

.. or that way?



... or may be next upcoming
problem in the East of Europe:

Ukraine?

Ukraine!

Ukraine has all conditions for growing more bigger fruit crops. The potential of Ukraine in growing horticulture is enormous.

Statistics says that in Ukraine is 206 thousand hectares occupied by fruit and berry plantings in fertile age.

With adequate conditions for the industry, Ukraine can enter the global market as a leading exporter of vegetables and fruits (IQF, juice and other).

The Ukrainian blackcurrant production is steadily above 30.000 tons in last 5 years, beside 2017 (expected to be 26.000 tons, because of the weather conditions).

Ukrainian blackcurrant market was mainly self serving in former times, but acreage grew from 6.000 ha in year 2000 to >10.000 ha in 2017.

Everything what was coming in addition to 6.000 hectares has the potential to be exported now.

Summary & Outlook

Polish Blackcurrant cultivation has been in economic crisis for several years. Growers try to compensate their losses by scale effects of increasing yields, what is making the whole situation worse.

This causes a long-standing overproduction with a too one-sided focus on processing and mass (even the markets for juice and IQF are oversaturated and shoveling stocks since years).

Marketing for currants, especially blacks as super fruits and vitamin carriers, has been severely neglected in recent years.

The Russian embargo has aggravated the situation and has led to prices not even rising if the goods are a bit tighter, as it was in 2017.



A short term change or improvement of the situation in Poland is UNLIKELY!

WHAT TO DO? – rule of the grower

Production according to the use/ kind of consumption

Fresh

- Taste
- Appearance
- Health

Juice

- Brix (sugar)
- Colour
- Acidity

IQF

- Appearance
- Strength
- Taste

Organic

- Lown
pesticide &
herbizide use
a.s.o.

- Offering fruit with ideal characteristics dedicated to the later use will make it distinguishable.
- It gives a chance to come into a long term contractation or fixed relationship with the industry and/or trade.
- Organic is still very small business in Europe- there is a big potential

WHAT TO DO? – rule of the association

- **PROMOTE** the fruit Blackcurrant as a super fruit in all directions, using all the arguments of health, taste and beauty
- Convince producers of food, cosmetics, pharmaceuticals and other industries to use more of it for their production.
- Expand lobbying, mainly in Europe, to get more aware of the fruit and improve their position between such fruits as apple, raspberry, strawberry and cherry.



WHAT TO DO? – rule of the administration



Not very not very popular, but:

- **Limiting production by law, rules, subvention or bonus systems for elimination of acreage.**
- **Contraction between planters and processors with very strictly documentation rules to keep “wild” cultivation out from the market (traceability, pest control).**
- **Promoting alternatives for plantation, eventually paying bonus for change to other cultivation.**



**Thank you for your
attention!**