

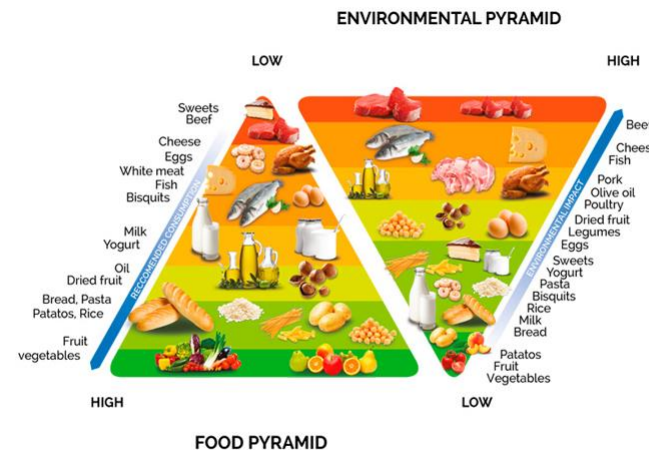
Citrus consumption trends in Europe

José Antonio García
Co-President
World Citrus Organisation

European tools to stimulate consumption

A favorable «societal »context for the citrus category

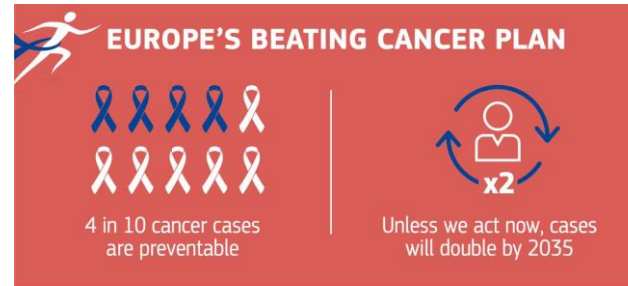
- ▶ **2020 Boost in citrus consumption** as a result of focus on health during the pandemic, stay at home context & citrus specific qualities as **immune system booster**
- ▶ The evolution of **societal concerns** and the assets of fruit and vegetables in regard to environmental and health
- ▶ **2021 United Nations' year of fruits and vegetables** to promote the category and its contribution to health & environmental sustainability



INTERNATIONAL YEAR OF
FRUITS AND VEGETABLES
2021

A favorable «political» context for the citrus category

- **Farm to Fork Strategy: Promoting sustainable food consumption** and facilitating the shift to healthy, sustainable diets
- **EU beating cancer action plan:** Improving health promotion through access to healthy diets and physical activity
- **European School scheme** and child guarantee: guaranteeing for children in need effective access to sufficient and healthy nutrition, including through the EU school fruit, vegetables and milk scheme

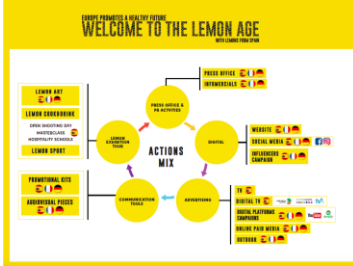


 European Commission | #EUCancerPlan



A favorable «marketing » context for the citrus category

- ▶ EUR **180 million annually** for promotion of European agri-food inside and outside the EU
- ▶ Fruits & vegetables' proposals face **strong competition** with wide variety of other sector for promotion budget- but fruit and veg have a dedicated budget of > 19 Mio €
- ▶ EU promotion is being re-directed at « new » topics dedicated to **sustainability in line with F2F objectives** (sustainable production, biodiversity preservation, organics, food waste & loss, etc.)
- ▶ EU co-Financing at **70- 80%**



A (un)favorable(?) «health & nutrition» context for the citrus category

- ▶ **Strict (European) regulation on authorized claims for consumer protection**
- ▶ **No specific claims authorized for citrus**
- ▶ Nutrition claim can be used through a general health claim referring to a specific nutrient/mineral.

World Citrus Organisation	
Nutritional Composition Clementine	
Nutrient	Per 100g
Water	85.77 g
Energy	47 kcal
Protein	0.81 g
Total fat	0.31 g
Carbohydrate	13.34 g
Fibre	1.8 g
Sugars	10.58 g
Calcium	27 mg
Iron	0.15 mg
Magnesium	12 mg
Phosphorus	20 mg
Potassium	146 mg
Sodium	2 mg
Zinc	0.072 mg
Copper	0.042 mg
Selenium	0.1 µg
Vitamin C	26.7 mg
Thiamin	0.038 mg
Riboflavin	0.036 mg
Niacin	0.376 mg
Vitamin B6	0.078 mg
Folate	18 µg
Choline	10.2 mg
Vitamin B12	0 µg
Vitamin A	34 µg
Carotene (beta)	153 µg
Carotene (alpha)	107 µg
Cryptoxanthin (beta)	407 µg
Lutein & zeaxanthin	158 µg
Vitamin E	12.2 mg
Fatty acids, total saturated	0.039 g
Fatty acids, total monounsaturated	0.06 g
Fatty acids, total polyunsaturated	0.065 g
Cholesterol	0 mg

Source: USDA - 'Clementine, raw'

World Citrus Organisation	
Nutritional Composition Orange	
Nutrient	Per 100g
Water	86.75 g
Energy	47 kcal
Protein	0.94 g
Total fat	0.12 g
Carbohydrate	11.75 g
Fibre	2.1 g
Sugars	9.35 g
Calcium	40 mg
Iron	0.1 mg
Magnesium	10 mg
Phosphorus	14 mg
Potassium	181 mg
Sodium	0 mg
Zinc	0.07 mg
Copper	0.045 mg
Selenium	0.3 µg
Vitamin C	53.2 mg
Thiamin	0.087 mg
Riboflavin	0.04 mg
Niacin	0.282 mg
Vitamin B6	0.06 mg
Folate	20 µg
Choline	8.4 µg
Vitamin B12	0 g
Vitamin A	11 µg
Carotene (beta)	71 µg
Carotene (alpha)	11 µg
Cryptoxanthin (beta)	116 µg
Lutein & zeaxanthin	129 µg
Vitamin E	0.18 mg
Fatty acids, total saturated	0.015 g
Fatty acids, total monounsaturated	0.031 g
Fatty acids, total polyunsaturated	0.025 g
Cholesterol	0 g

Source: USDA - 'Orange, raw'

World Citrus Organisation	
Nutritional Composition Lemon	
Nutrient	Per 100g
Water	88.98 g
Energy	29 kcal
Protein	1.1 g
Total fat	0.3 g
Carbohydrate	9.32 g
Fibre	2.9 g
Sugars	2.5 g
Calcium	26 mg
Iron	0.6 mg
Magnesium	8 mg
Phosphorus	16 mg
Potassium	188 mg
Sodium	2 mg
Zinc	0.06 mg
Copper	2 mg
Selenium	0.4 µg
Vitamin C	53 mg
Thiamin	0.04 mg
Riboflavin	0.02 mg
Niacin	0.1 mg
Vitamin B6	0.08 mg
Folate	11 µg
Choline	51 µg
Vitamin B12	0 g
Vitamin A	1 µg
Carotene (beta)	3 µg
Carotene (alpha)	1 µg
Cryptoxanthin (beta)	201 µg
Lutein & zeaxanthin	11 µg
Vitamin E	0.15 mg
Fatty acids, total saturated	0.039 g
Fatty acids, total monounsaturated	0.031 g
Fatty acids, total polyunsaturated	0.069 g
Cholesterol	0 g

Source: USDA - 'Lemon, raw'



'EU Nutritional Claims Cheat Sheet':

How to use nutrition & health claims for citrus fruit in EU market?

1. Nutritional information on citrus: where to find referential values?

The composition of fruits and vegetables differs substantially. Even within the same fruit it can vary according to many factors, such as the type of cultivar, the plant growing conditions (e.g. soil composition, climate, fertilizer use), post-harvest handling, distribution and storage conditions as well as the ripeness of the final product.

It is therefore difficult to find a reference figure for the nutritional composition of fresh citrus fruit varieties, as well as citrus juice. Different varieties and origins may have different values. However, there exist some official sources which may be used as a quick reliable source of health and nutrition information for citrus:

- [USDA Database](#) (in English)
- [CQIAL Database](#) (in English and French)
- [EFSA database](#) (EU countries data compilation for multiple F&V, in English)
- [Norway national database](#)
- [Dutch national database](#)

2. Definitions: nutrition claim & health claim

Identifying correctly nutrition and health claims is essential to the creation of health-related communication content in line with EU legislation:

Nutrition claim	Any claim which states, suggests or implies that a food has particular beneficial nutritional properties due to: (a) the energy (calorific value) it (i) provides; (ii) provides at a reduced or increased rate; or (iii) does not provide; and/or (b) the nutrients or other substances it (i) contains, (ii) contains in reduced or increased proportions; or (iii) does not contain.
Health claim	Any claim that states, suggests or implies that a relationship exists between a food category, a food or one of its constituents and health. There are 3 main types of health claims. 1) Function health claims: Relate to growth, development, functions of


1



WCO work in Health & Nutrition to boost positioning of the sector


World Citrus Organisation

A favorable «health & nutrition »context » for the citrus category

 **World Citrus Organisation**

Nutrition Facts

Oranges
are high in Vitamin C.
Vitamin C contributes to normal collagen formation for the normal function of cartilage which keep our articulations running.



Learn about citrus nutrition & health with WCO.

World Citrus Organisation logo

 **World Citrus Organisation**

Nutrition Facts

Lemons
are high in Vitamin C.
Vitamin C contributes to normal collagen formation for the normal function of bones.



Learn about citrus nutrition & health with WCO.

World Citrus Organisation logo

 **World Citrus Organisation**

Nutrition Facts

Limes
are high in Vitamin C.
Vitamin C contributes to normal collagen formation for the normal function of blood vessels.



Learn about citrus nutrition & health with WCO.

World Citrus Organisation logo

 **World Citrus Organisation**

Nutrition Facts

Citrus
are high in Vitamin C.
Vitamin C contributes to the normal function of the immune system during and after intense physical exercise.



Learn about citrus nutrition & health with WCO.

World Citrus Organisation logo

 **World Citrus Organisation**


Nutrition Facts

Soft citrus
are high in Vitamin C.
Vitamin C increases iron absorption, which is essential for our cells to transport oxygen.




Learn about citrus nutrition & health with WCO.

World Citrus Organisation logo

 **World Citrus Organisation**

Nutrition Facts

Grapefruits
are high in Vitamin C.
Vitamin C contributes to normal collagen formation for the normal function of teeth.



Learn about citrus nutrition & health with WCO.

World Citrus Organisation logo

WCO work in Health & Nutrition to boost positioning of the sector

Consumption trends in the major EU markets

Results of promotion efforts: EU trends in citrus consumption

► Methodology:

- Consumption estimations calculated on basis of net supply (production-export+import/population)

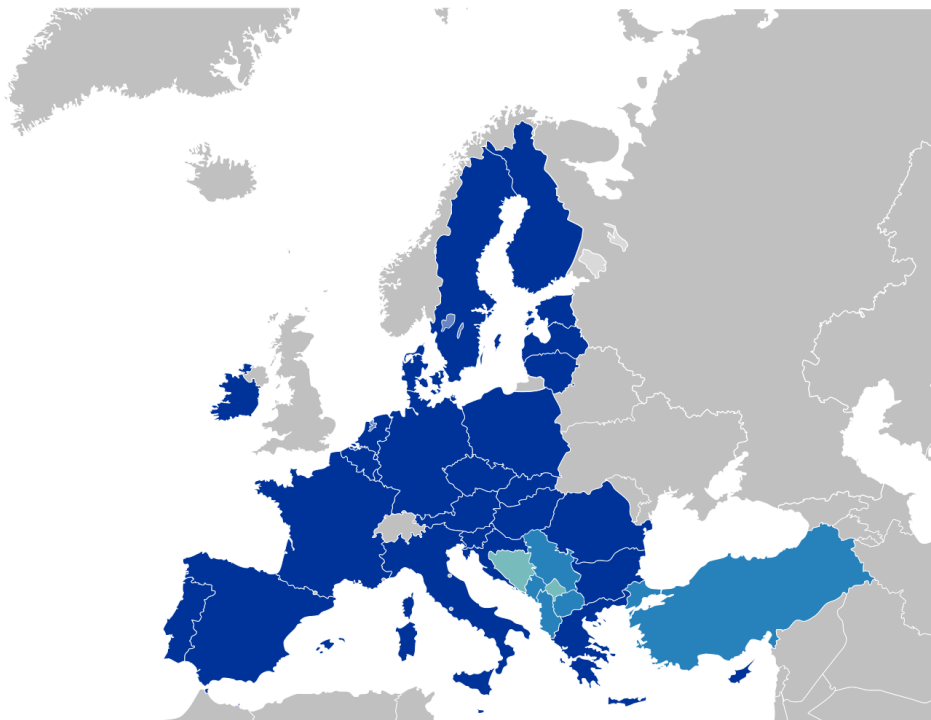
► Sources: Eurostat (trade intra-EU and international), COMTRADE (for non-EU Member States), WCO data (production)

► Potential pitfalls/shortcomings:

- Estimations on % processing & loss of production for producing countries
- Population changes (average accounted for 2012-2020 period)
- Focus on main categories' consumed (orange, lemon, grapefruit & soft)
- Data until 2017 for Norway (COMTRADE), until 2019 for UK (Brexit effect) & from 2015 for Spain (WCO production data)

Not a single story...?

- ▶ Regional differences

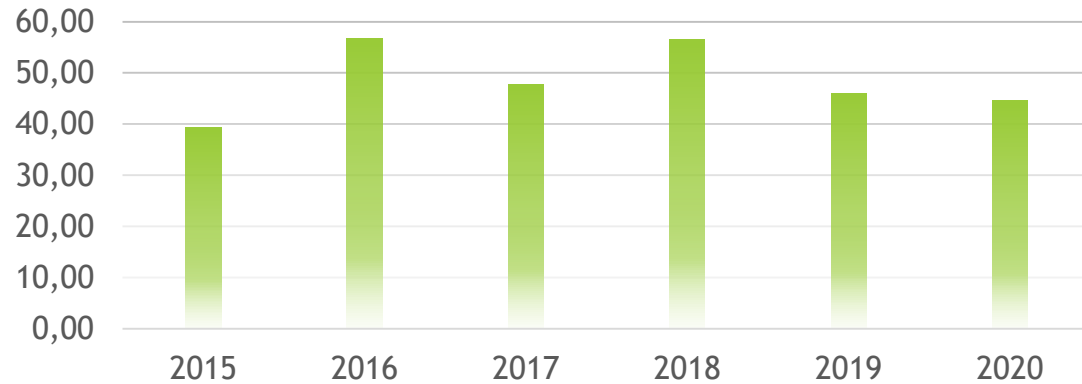


- ▶ Varieties differences



Western Mediterranean: Spain

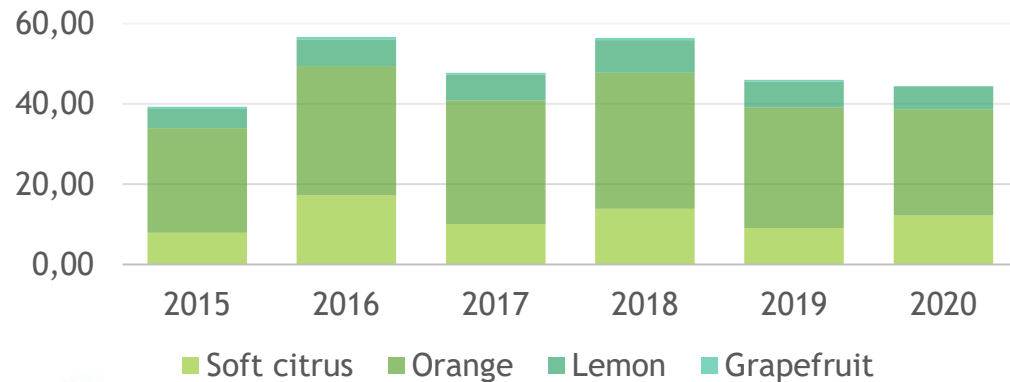
ES: CITRUS CONSUMPTION KG/CAPITA



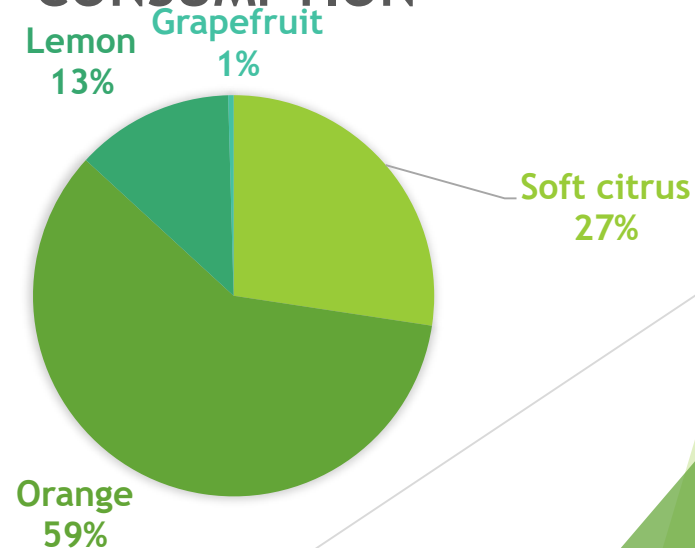
Main highlights:

- Total consumption 44.5 kg/capita
- 2020-2015 overall growth: +13%
- **5-year average annual variation: 5%**
- 2012-20 variation by category:
 - Oranges +1%
 - Lemon +18%
 - Grapefruit -64%
 - Soft citrus +55%

ES: EVOLUTION OF CONSUMPTION BY VARIETY

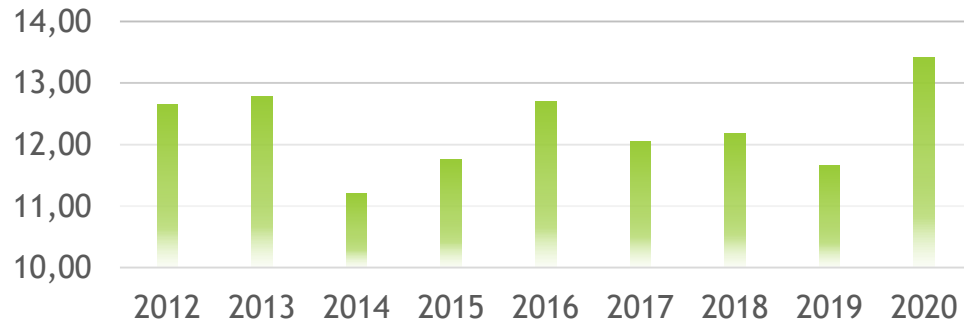


2020 ES CITRUS CONSUMPTION

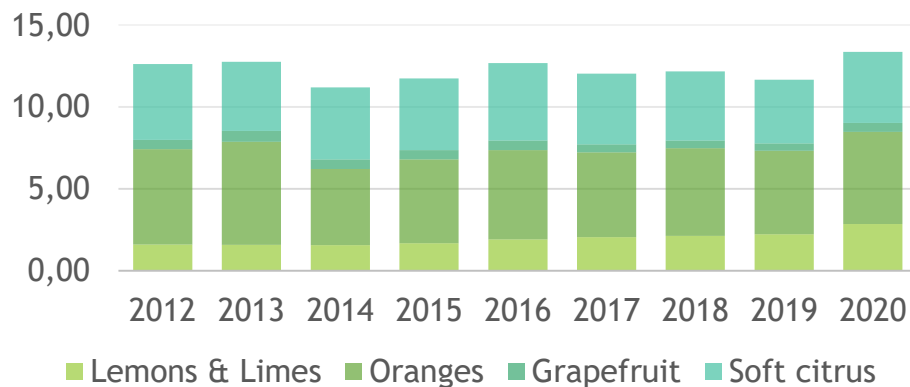


Central Europe: Germany

GERMANY CITRUS CONSUMPTION (KGR/CAPITA)



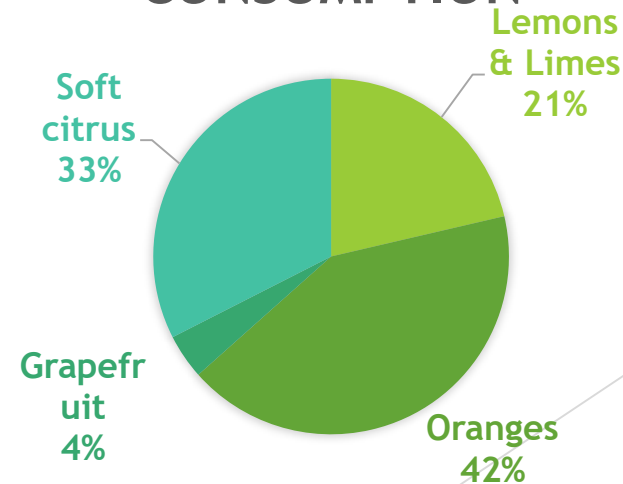
GERMANY: EVOLUTION OF CONSUMPTION GR/CAPITA



Main highlights:

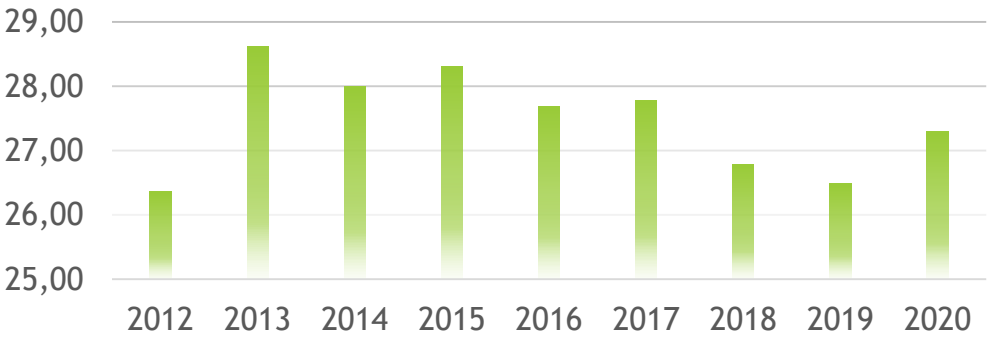
- Total consumption 13.4 kg/capita
- 2020-2012 overall growth: 6%
- **7-year average annual variation: +1%**
- 2012-20 variation by category:
 - Oranges -4%
 - Lemon 79%
 - Grapefruit -4%
 - Soft citrus -6%

2020 DE CITRUS CONSUMPTION



Benelux: Netherlands

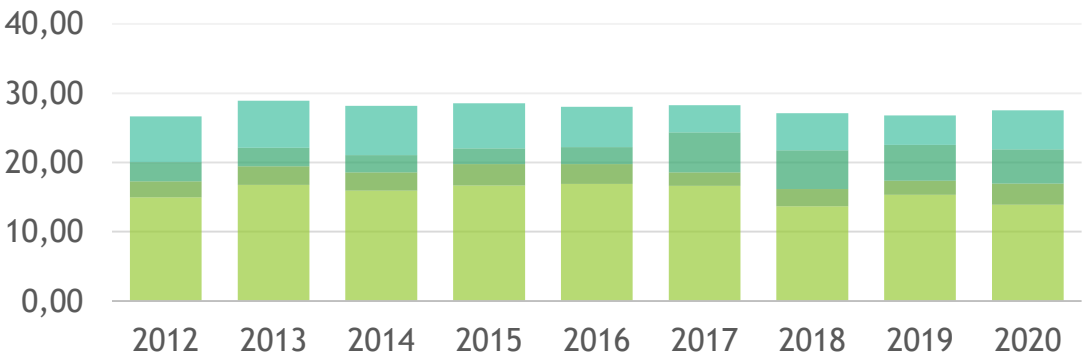
NETHERLANDS: CITRUS CONSUMPTION (KG/CAPITA)



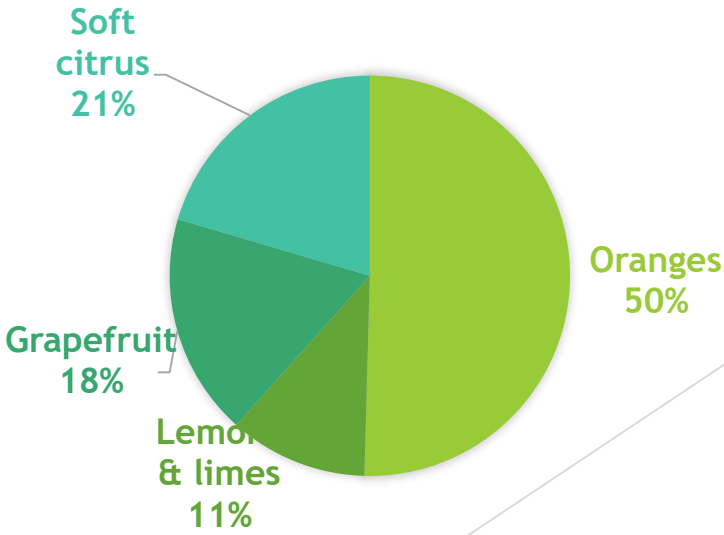
Main highlights:

- Total consumption 27.3 kg/capita
- 2020-2012 overall growth: 4%
- 7-year average annual variation: 0%
- 2012-20 variation by category:
 - Oranges -7%
 - Lemon +32%
 - Grapefruit +77%
 - Soft citrus -15%

NETHERLANDS CITRUS CONSUMPTION EVOLUTION BY VARIETY (KG/CAPITA)

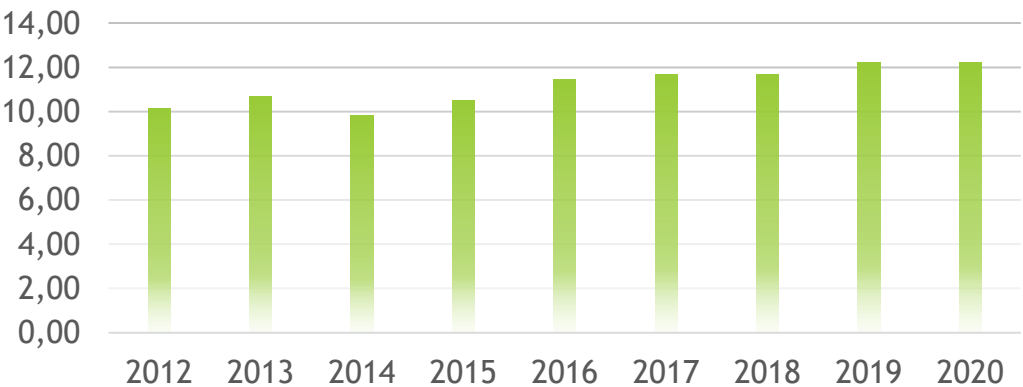


2020 NL CITRUS CONSUMPTION



Eastern Europe (North): Poland

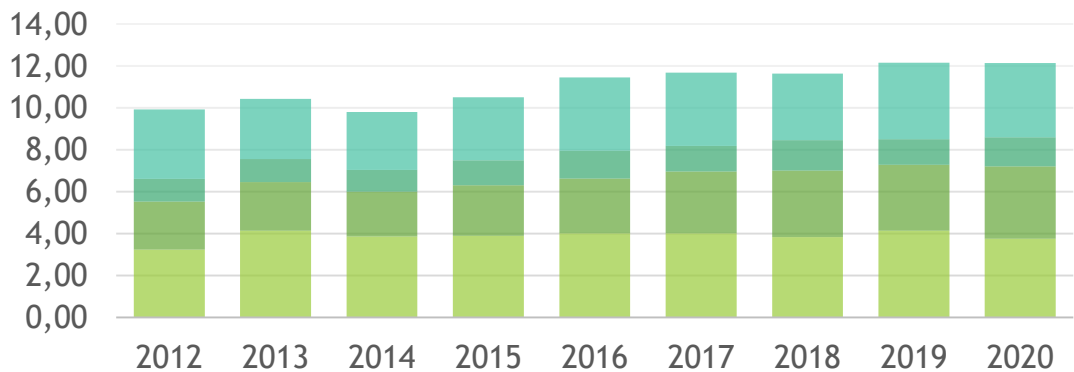
POLAND: CITRUS CONSUMPTION (KG/CAPITA)



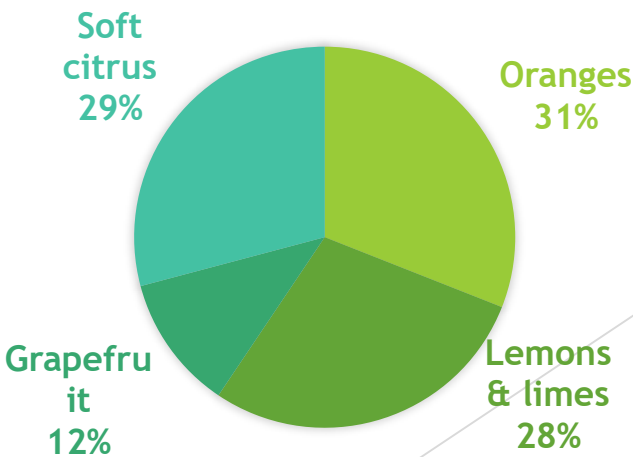
Main highlights:

- Total consumption 12.23 kg/capita
- 2020-2012 overall growth: 21%
- 7-year average annual variation: 3%
- 2012-20 variation by category:
 - Oranges 16%
 - Lemon 51%
 - Grapefruit 29%
 - Soft citrus 7%

POLAND: EVOLUTION OF CONSUMPTION BY VARIETY

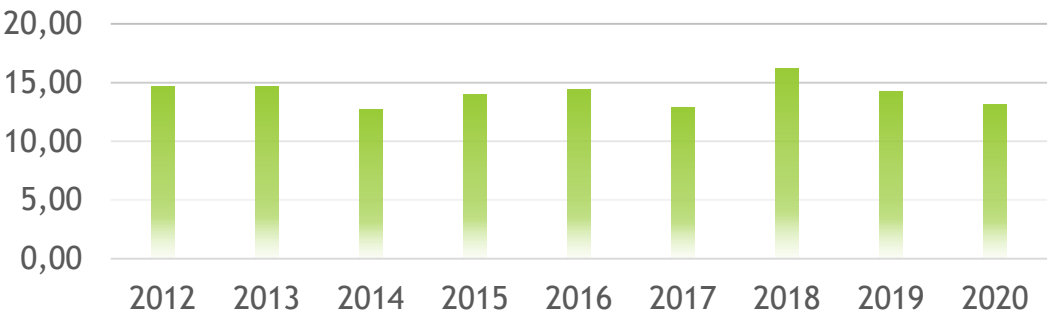


2020 PL CITRUS CONSUMPTION



Nordic countries (EU): Denmark

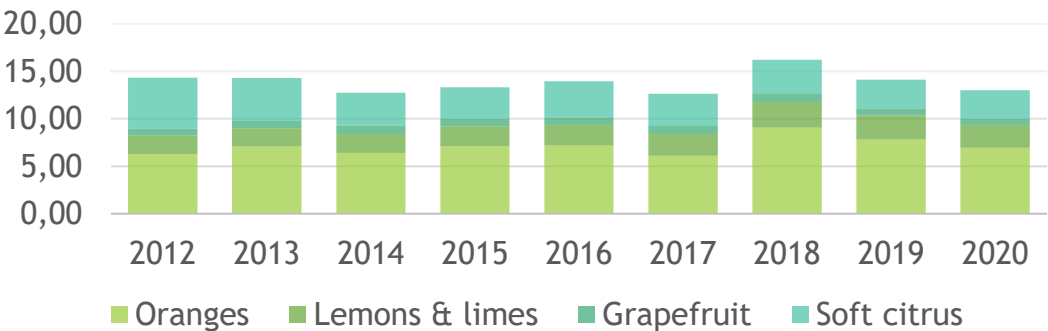
DENMARK CITRUS CONSUMPTION (KG/CAPITA)



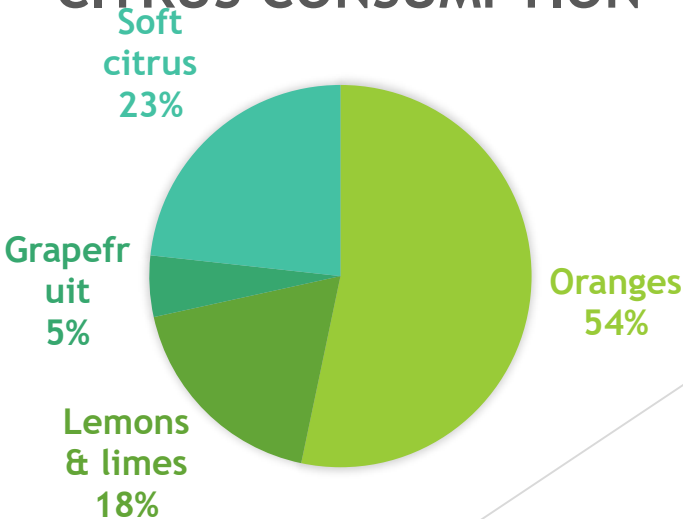
Main highlights:

- Total consumption 13.15 kg/capita
- 2020-2012 overall growth: -10%
- 7-year average annual variation: -1%
- 2012-20 variation by category:
 - Oranges +11%
 - Lemon +19%
 - Grapefruit -5%
 - Soft citrus -44%

DENMARK: EVOLUTION CONSUMPTION/CAPITA VARIETIES

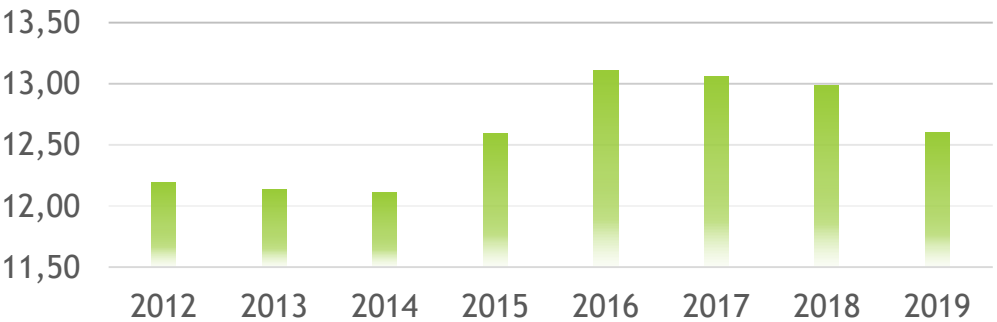


2020 DENMARK CITRUS CONSUMPTION



British isles: United Kingdom

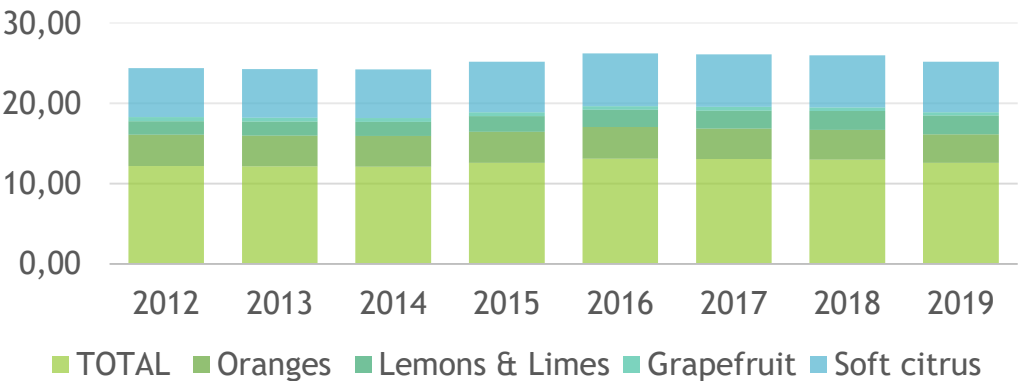
UK: CITRUS CONSUMPTION KG/CAPITA



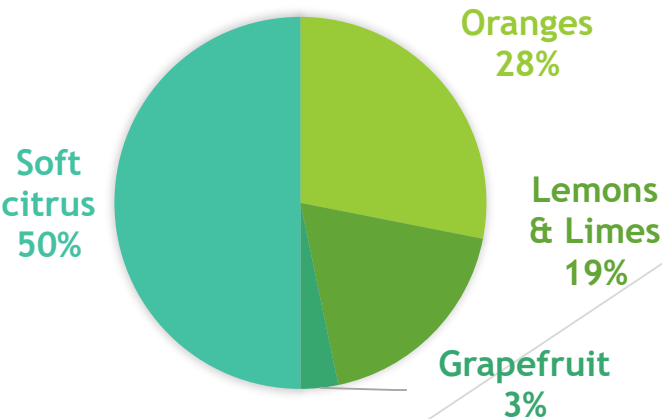
Main highlights:

- Total consumption 12.6 kg/capita
- 2019-2012 overall growth: +3%
- 7-year average annual variation: 1%
- 2012-20 variation by category:
 - Oranges -9%
 - Lemon +40%
 - Grapefruit -21%
 - Soft citrus +3%

UK: EVOLUTION OF CONSUMPTION BY VARIETY

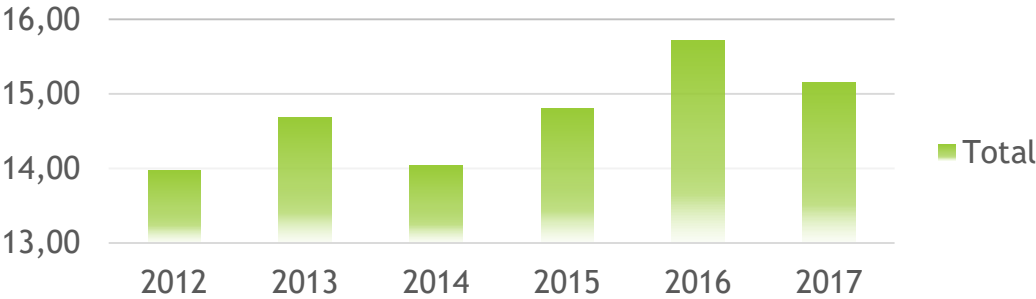


2019 UK CITRUS CONSUMPTION



Nordic countries (non-EU): Norway

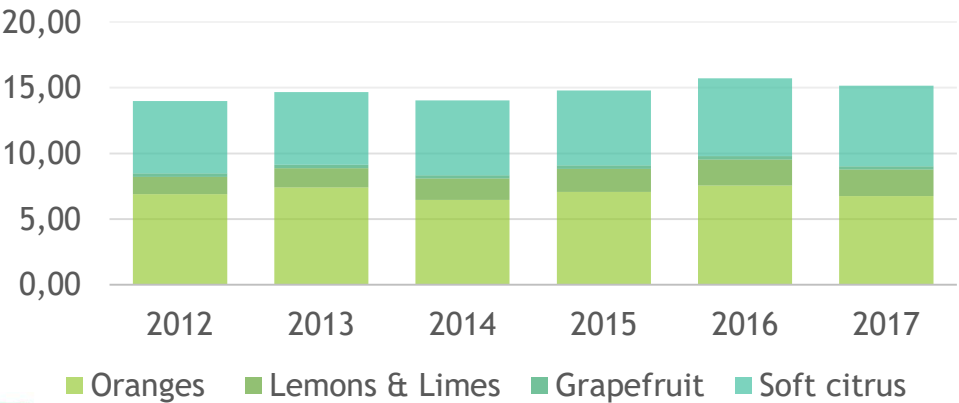
NORWAY: CITRUS CONSUMPTION EVOLUTION (KG/CAPITA)



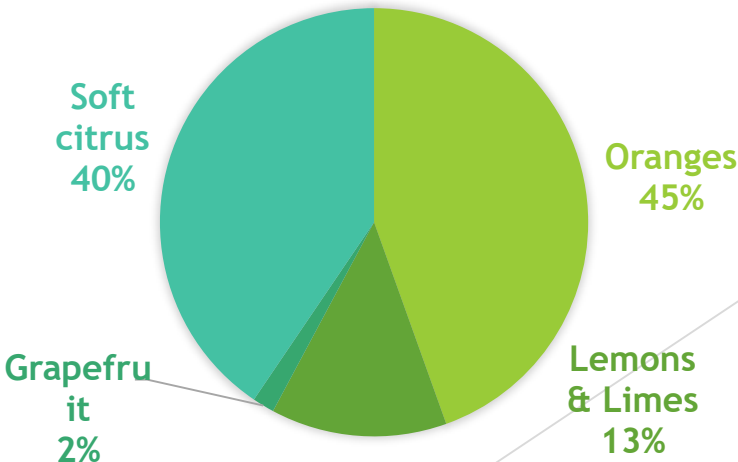
Main highlights:

- Total consumption 15.15 kg/capita
- 2017-2012 overall growth: +8%
- 5-year average annual variation: +2%
- 2012-2020 variation by category:
 - Oranges -2%
 - Lemon +52%
 - Grapefruit -5%
 - Soft citrus +12%

NORWAY: EVOLUTION KG/CAPITA VARIETIES



NO CITRUS VARIETIES CONSUMPTION



Concluding remarks

- ▶ Overall **fairly stagnant consumption**, with exception in Eastern Europe where more dynamism in past years since consumption was lower
- ▶ Signals of **convergence** in overall citrus consumption in Europe (aprox 12-13 kg/capita)
- ▶ Significantly **higher consumption in producing** country vs. non-producing
- ▶ **Lemon** most dynamic category in most countries
- ▶ **Orange** remains **largest** category of almost 50% of consumption in most countries but losing ground to other (soft, lemons) but little development in past years
- ▶ Developments of **soft citrus diverge widely** in each market (growth in Eastern markets, to sharp decrease in Denmark)
- ▶ **Grapefruit boom in Netherlands** and some growth in the East.
- ▶ Overall citrus category in line with **EU big fruit categories** in terms of consumption trends

Thank you!

For any comments or questions please contact the Secretariat at
wco@worldcitrusorganisation.org