

# Danish Christmas tree production is climate-friendly

The Danish Christmas Tree Association – trees & greenery has carried out a life cycle assessment (LCA) of Christmas trees produced in Denmark. The assessment concludes that conventional Christmas tree production, seen in isolation, removes the equivalent of 0.6 kg of CO<sub>2</sub> from the atmosphere and that consumer transportation is the most significant factor in respect of the overall climate impact. The impact on the climate corresponds to 2.6 kg of CO<sub>2</sub>, when consumer transportation is included.

## Different productions

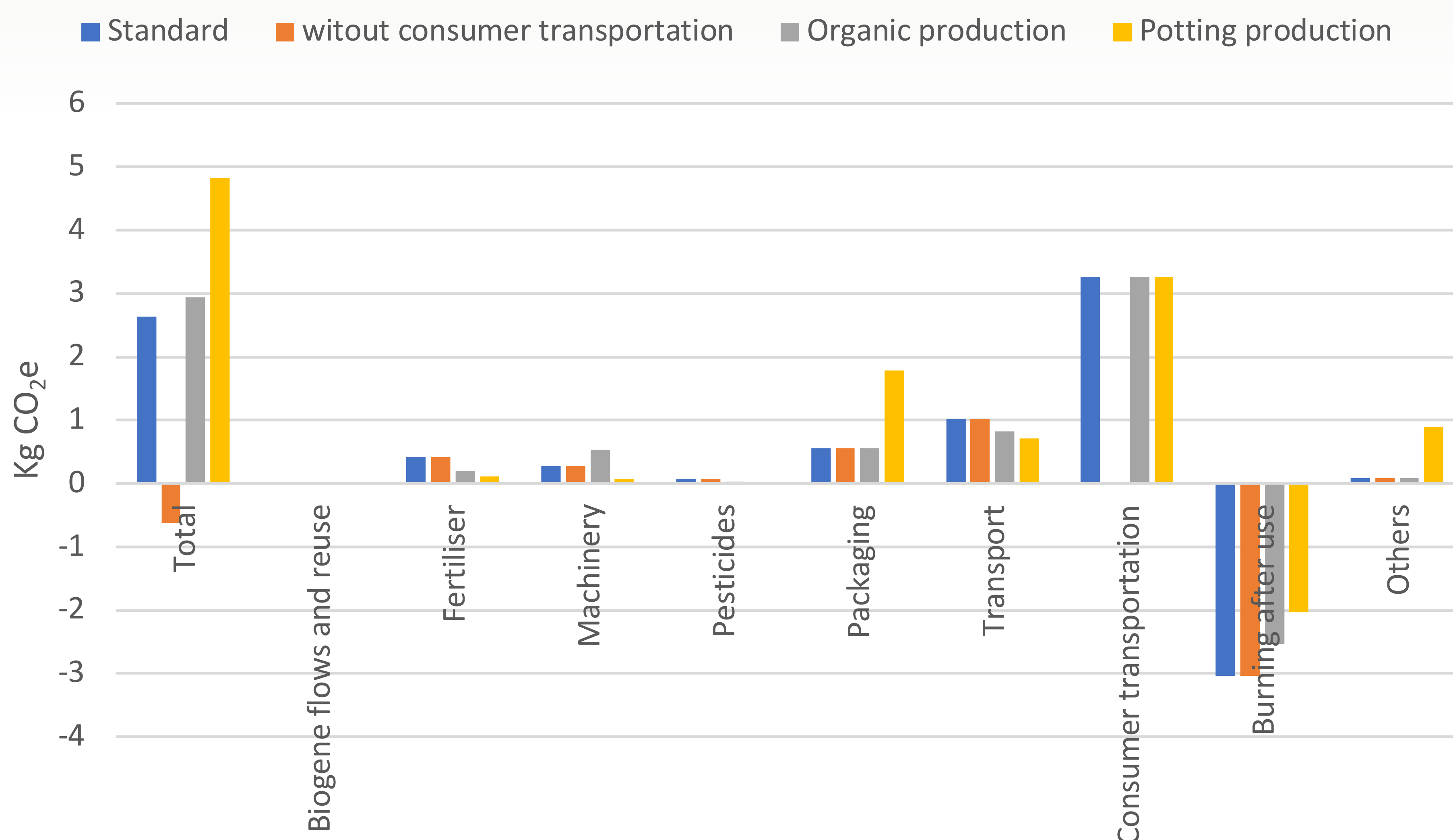
	Conventional	Organic	Potting
<b>Nursery</b>			
Weed control	Chemical/mechanical	Mechanical	Chemical/
mechanical	Kunstgødning	Organisk gødning	Kunstgødning
Fertilization	Fertilizers	Organic fertilizers	Fertilizers
<b>Pest control</b>			
	6000	5000	12500
Main production	4500	4000	12000
Plant numbers (no./ha)	6,000	5,000	12,500
Marketable trees (no/ha)	4,500	4,000	12,000
Weed control	Chemical	Mechanical	Chemical
Fertilization	Fertilizers	Organic fertilizers	Fertilizers
Pest control	Chemical	Chemical– basic substances	Chemical
Leaderlength control	Chemical	Mechanical	Chemical
Irrigation	No	No	Yes
Tree weight (kg)	18	15	12
Height (m)	2.0	2.0	1.2

## Environmental impacts

Production of one Nordmann fir Christmas tree produced in Denmark removes the equivalent of 0.6 kg of CO<sub>2</sub>, when it has arrived at the point of sale in Europe.

Including all inputs for cultivation and transportation to the points of sale in Europe, the Christmas tree is thus an overall gain for the climate.

If the consumer picks up a Christmas tree (Danish or locally grown) at the points of sale and transports the tree over a distance of 2\*10 km in a new smaller petrol car, the total climate impact corresponds to 2.6 kg CO<sub>2</sub>.



The lowest climate impact is achieved through conventional cultivation (2.6 kg CO<sub>2</sub>e) followed by organic production (2.9 kg CO<sub>2</sub>e), where a higher diesel consumption for mechanical weed control is the primary reason for the slightly higher environmental impact.

With a 4.8 kg of CO<sub>2</sub>e, potting production accounts for the highest environmental impact, which mainly stems from irrigation (others) and a larger impact from packaging (pots) as well as the fact that the trees are smaller (lower CO<sub>2</sub> uptake) with consequent less displacement of fossil fuels when burning after use.

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