

III. The "palm oil or better coconut oil" course plan

Sustainability is important - but rarely easy. This is especially true for palm oil used in food and fuel. How damaging to the climate is palm oil? And is coconut oil really better as an alternative ?

PHASE	SUB TOPIC	MATERIAL	DURATION
Access	Video MaiLab https://www.youtube.com/watch?v=fyMQoYF5AfQ	Video clip	6 min
	Noleppa, S. et al (2016) WWF report "On the oil trail" and WWF statement on the cultivation of oil palms under https://www.wwf.de/themen-projekte/landwirtschaft/produkte-aus-der-landwirtschaft/palmoel	Article and video	15 min
Practice	Make your own coconut oil with video tutorial using Bea's recipe: https://www.youtube.com/watch?v=kZajimEFQJ8	LAB ADD ON	60 min
and/or	Make simple palm oil or coconut oil based cream.	LAB ADD ON	60 min
and/or	cooking soap, saponification number, iodine number	LAB ADD ON	120 min
Group work	Division of the 5 working groups with 4-6 participants		10 min
FACT CHECK	Growing conditions, water, land requirements	SECTION 1	30 min
	World map: Using the Excel tables, each group identifies the main producing countries and enters the data on the world map.	World Map Print Template	30 min
LCA Simple	CO ₂ -, water footprint, land consumption of 1 litre of oil.	SECTION 2	30 min
	LCA scheme simple - as a mind map	SECTION 3	20 min
RESULTS	Fill in fact tables Rating in the table	SECTION 4	30 min
	Group discussion / expert round / group puzzle		60 min
LCA complex	Statista: https://de.statista.com/statistik/daten/studie/1176478/umfrage/ernteertrag-von-palmoelfrucht-nach-laendern/	DATA-SET	60 min
	Finding, supplementing and comparing ingredients: Fatty acids, nomenclature, saturated/unsaturated, nutrition.	SECTION 3	30 min
	Tank - Plate - Discussion: Using food as an energy source pro & contra	SECTION 3+4	30 min