

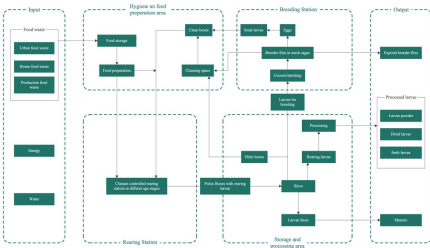
FUNDAMENTAL RESEARCH

FARM CYCLE

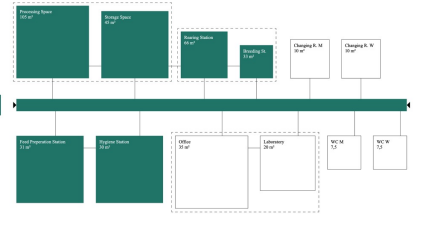
Product	CO2-equiv./kg	CO2 average	l Water/kg	l Water average
Beef	27,75		15 000	
Pork	5,34	13,02	5 000	5 975
Poultry	4		3 900	
Fisheries	15		*	
Aquaculture	3,4	1,80	2 666	1 909
Insect Larvae	1,5		1 500	
Algae Powder	1,8	7,2 times less emissions	20	3,1 times less emissions
Wheatgrass Pow.	0,5		3 450	

CO2-equiv. / kg	CO2-equiv. kg	l Water/kg
Product	Source	CO2 CO2 CO2 Total CO2
Beef	Algar et al. (2017) Beef	7 21 2 10 13 000
	Craig & Hedley (2016), British Beef	12 12 000
	Williams et al. (2016), "Average UK beef"	14 13 000
	Williams et al. (2016), "20% beef"	29 13 000
	Varga et al. (2016), "Average Canadian beef"	4 12 11 36 13 000
	Colburn et al. (2016), "Average Canadian beef"	8 11 8 48 13 000
	Colburn et al. (2016), "Average Canadian beef 2017"	3,3 17,3 7 28 13 000
	Colburn & Dierkes (2016), "Canadian beef"	3 19 6 19 13 000
	VERA-ALG	17,5 13 000
Pork	Williams et al. (2016)	4,6 5 000
	Bauer-Mens & Van der Wal (2016)	8 5 000
	Colburn & Dierkes (2016)	1,2 1,1 3,1 3,6 5 000
	Sold Edwards et al. (2016)	3,3 5 000
	Colburn et al. (2016)	1,3 1,3 3,6 5,2 5 000
	VERA-ALG	1,3 5 000
Poultry	Thompson et al. (2011)	3,5 3 900
	Pollock et al. (2011)	2,6 3 900
	Colburn et al. (2016)	1,2 0,1 1,2 2,5 3 900
	Williams et al. (2016), conventional	4,1 3 900
	Williams et al. (2016), free-range	1,3 3 900
	VERA-ALG	1 3 900
Fisheries	FEL (2019)	15 0
	VERA-ALG	1,5 0
Apiculture	FEL (2019), Honey bees	1,2 1 900
	Fisher et al. (2016), Calf	4,8 3 900
	Pollock & Thompson (2011), Salmon	4,2 3 900
	Colburn et al. (2016)	1,4 3 900
	Colburn et al. (2016)	1,4 3 900
	Colburn & Dierkes (2016), Egg	6,3 3 900
	Colburn & Dierkes (2016), Pigeon	6,3 3 900
	VERA-ALG	1 3 900
Vegetables	Bauer-Mens et al. (2016), Tomatoes	6,0 1 900
	Bauer-Mens et al. (2016), Carrots	6,2 1 900
	VERA-ALG	6,1 1 900

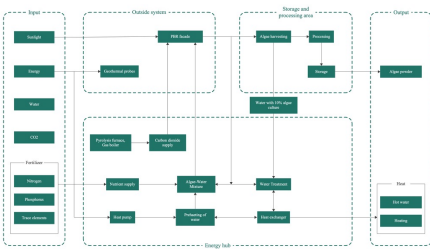
INSECT FARMING



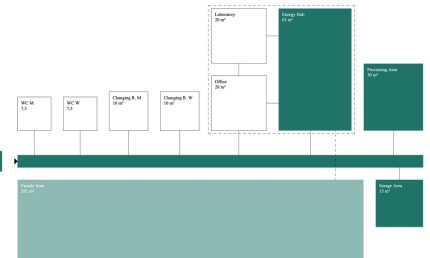
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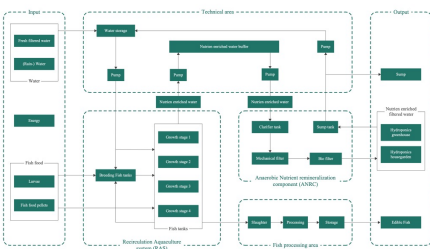
ALGAE CULTIVATION



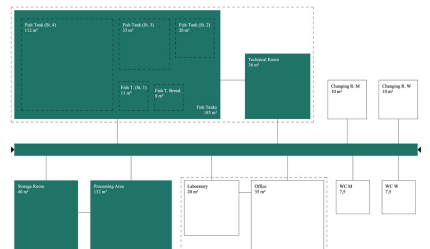
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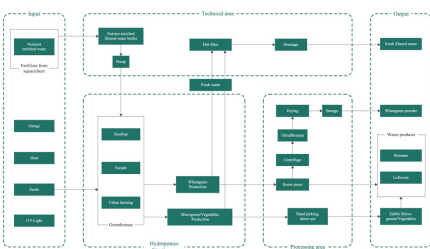
AQUAPONICS / FISH FARMING



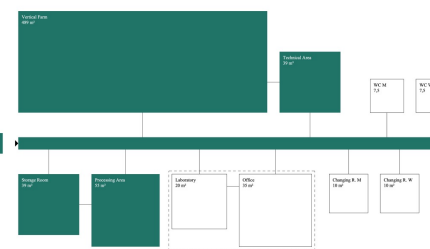
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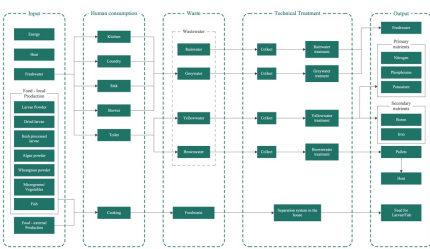
VERTICAL FARMING / HYDROPONICS



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Aquaculture	3,4	1,80	2 666	1 909
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Algae Powder	1,8	7,2 times less emissions	20	3,1 times less emissions
Wheatgrass Pow.	0,5		3 450	



HUMAN CONSUMPTION



Product	CO2-equiv./kg	CO2 average	l Water/kg	l Water average
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Fisheries	15		*	
Aquaculture	3,4	1,80	2 666	1 909
Insect Larvae	1,5		1 500	
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