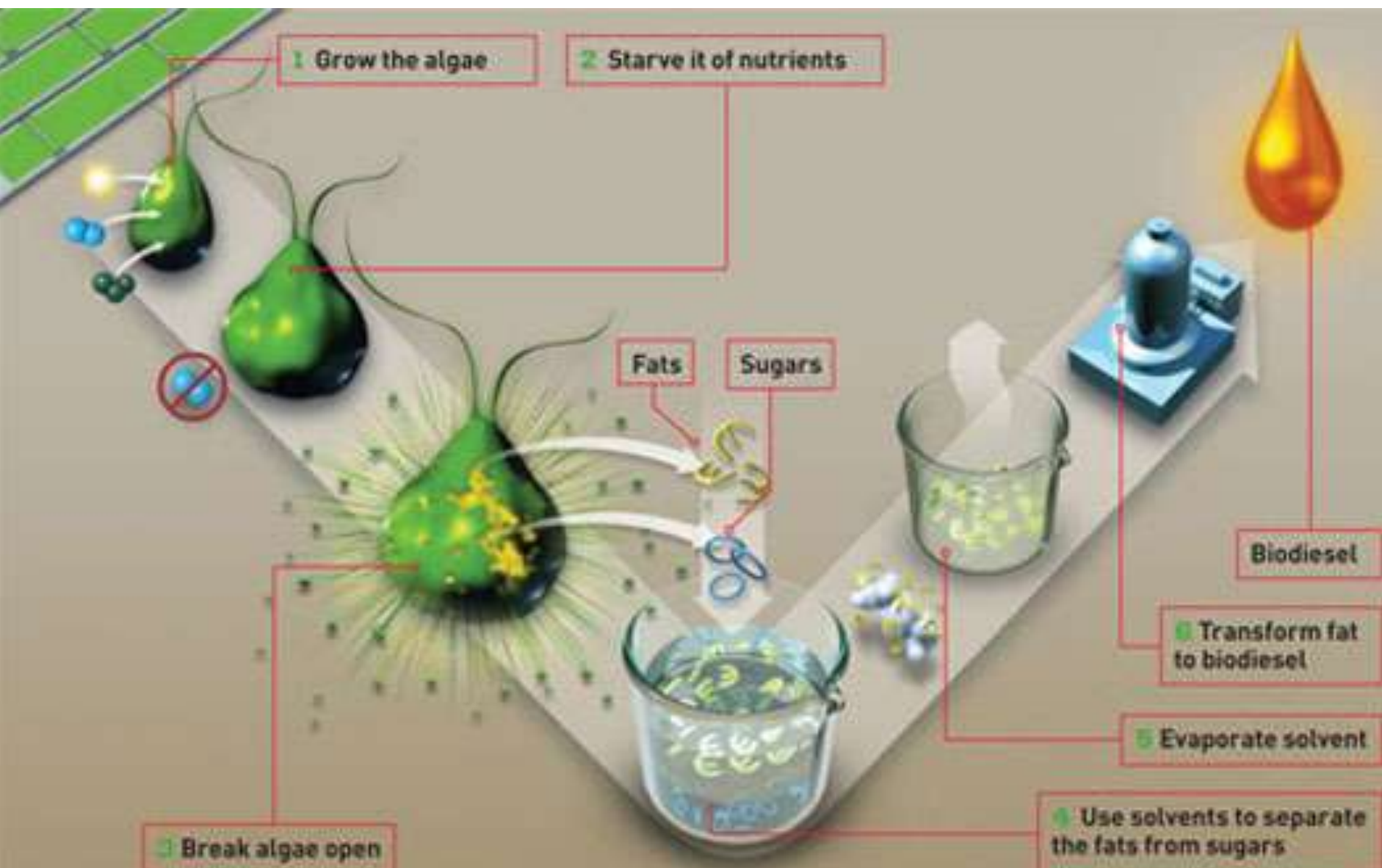


# Biofuels from ALGAE



# Advantages of Algae Biofuels

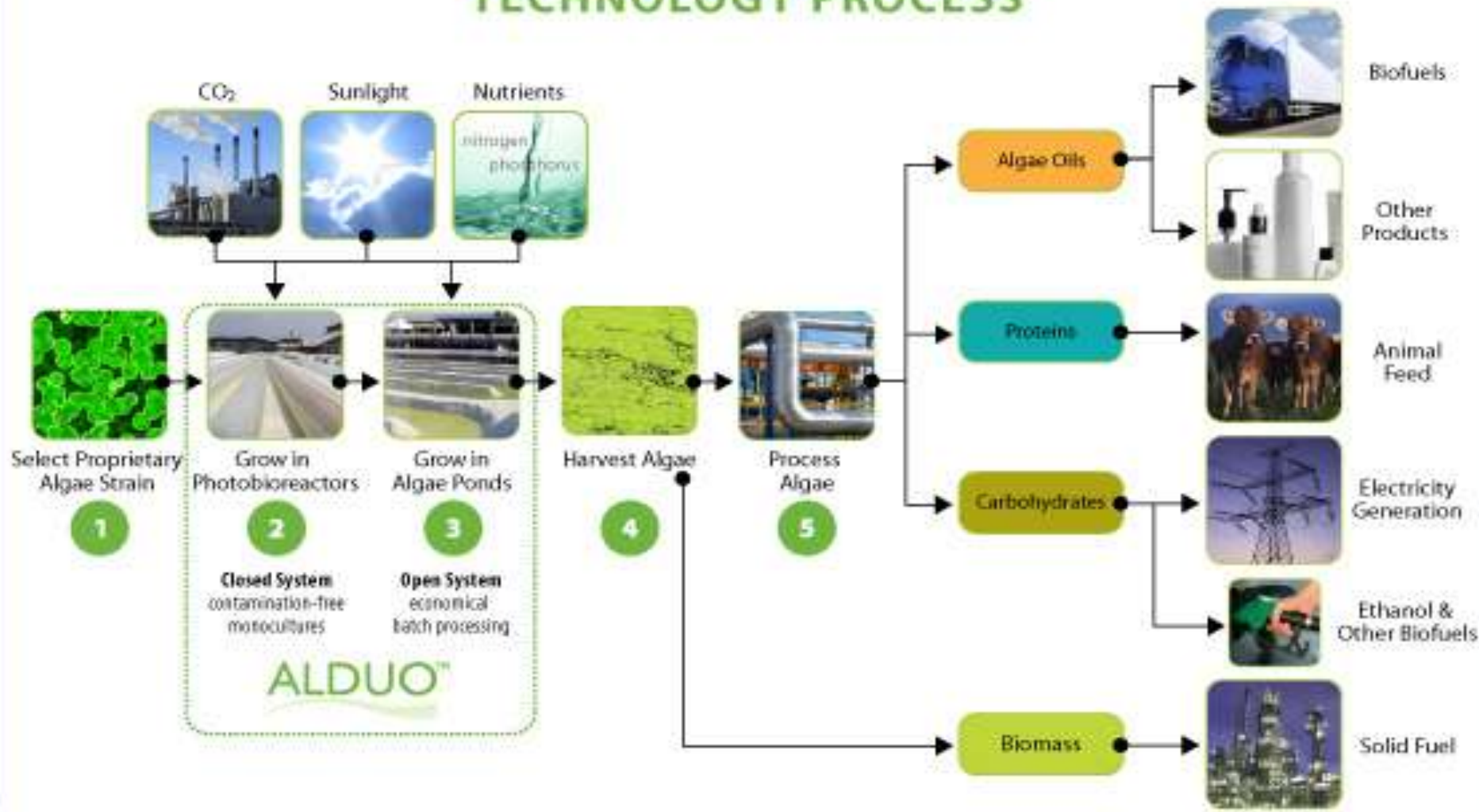
- Can be cited anywhere (near coal plants)
- Does NOT use irrigation water
- Harvest cycle very fast (every 2 weeks)
- Very high production per area, does not use much land
- Much easier processing, starts with a tri-glyceride, not cellulose/lignin









# HR BioPETROLEUM TECHNOLOGY PROCESS



# From HRBioPetroleum

[ [www.hrbp.com](http://www.hrbp.com) ]

Oil Source	Biomass (Mt/ha/yr)	Oil Content (% drymass)	Biodiesel (Mt/ha/yr)	Energy Content (boe/1000ha/day)
 Soya	1-2.5	20%	0.2-0.5	3-8
 Rapeseed	3	40%	1.2	22
 Palmoil	19	20%	3.7	63
 Jatropha	7.5-10	30-50%	2.2-5.3	40-100
 <b>Microalgae</b>	<b>140-255</b>	<b>35-65%</b>	<b>50-100</b>	<b>1,150-2,000</b>

mt = metric tons, ha = hectare, boe = barrel of oil equivalents

Crop	Oil Yield Gallons/acre
Corn	18
Cotton	35
Soybean	48
Mustard seed	61
Sunflower	102
Rapeseed/Canola	127
Jatropha	202
Oil palm	635
Algae (10 g/m <sup>2</sup> /day at 15% TAG)	1,200
Algae (50 g/m <sup>2</sup> /day at 50% TAG)	10,000















# AlgaeVenture Systems Harvester

Separates algae from water, dewateres, dries

