Table 1 Observed and expected biomass production and CO₂ release by *B. napus* embryos in culture

Metabolic sink	Percentage of carbon observed	Percentage of carbon expected by conventional pathways
Oil	49.7 ± 2.8	<44.9*
Protein, starch, cell wall, etc.	32.7 ± 2.3	32.7
CO ₂ released	17.6 ± 2.2	>22.4*
Ratio of carbon in oil to CO ₂ released	2.9 ± 0.3	<2.0
Ratio of carbon in oil to CO ₂ released	2.9 ± 0.3	<2.0

Aseptically isolated embryos in the early phase of storage accumulation were grown in liquid culture for 3 days at a light intensity of $50\,\mu\text{mol}\,\text{m}^{-2}\,\text{s}^{-1}$, with glucose, sucrose, glutamate and alanine as ^{14}C -labelled substrates. Standard deviations are given for n=5 experiments.

^{*} Assuming that CO_2 is produced only for oil synthesis (PDH reaction), the carbon fractions of oil and CO_2 are expected to be in the ratio 2:1. This value is a minimum because, in addition to PDH, the OPPP and the TCA cycle produce CO_2 (see the text).