Below is the description of the columns in the file called “QuantityVQuality\_MainDataset.csv”

**Number:** The row number

**Id:** an id number given to each individual in the study

**Diet:** The quality of the diet. HPHS= high protein, high sugar diet. There is a high, medium and low for both protein and sugar, with all nine combinations present.

**Quantity:** The amount of diet the larvae was fed

**Initialsize:** the length of the larva when it was grafted into the plate

**Biggestsize:** the size of the larva at the end of the larval period

**LarDevTime:** the number of days from grafting to defecation (an indication of decision to start metamorphosis)

**RelGR:** The relative growth rate

**AbGR:** The absolute growth rate

**ProPerc:** The proportion of protein in the diet

**TotalProt:** The total amount of protein that larval received during development.

**CarbPerc:** The proportion of carbohydrate in the diet

**TotalCarb:** The total amount of carbohydrate that larval received during development.

**WaterPerc:** The proportion of water in the diet

**TotalWater:** The total amount of water that larval received during development.

**DeadLarvae:** 0 indicates the larva died, 1 indicates the larva survived

**Hive:** A letter that identifies which hive the larvae came from

**EclDevTime**: The number of days from grafting to adult eclosion. A negative number indicates the individual died before eclosion.

**PupDevTime:** The number of days in the pupal stage. A negative number indicates the individual died before completing the pupal stage.

**DeadPupae:** 0 indicates the pupa died, 1 indicates the pupa survived

**Adult Weight:** The weight of the adult at eclosion.

**Head width:** the head width of the adult at eclosion, see Fig 1

**Head length:** the head length of the adult at eclosion, see Fig 1

**Mandible width:** the mandible width of the adult at eclosion, see Fig 1

**Mandible length:** the mandible length of the adult at eclosion, see Fig 1

**Basitarsus width**: the basitarsus width of the adult at eclosion, see Fig 1

**Basitarsus length:** the basitarsus length of the adult at eclosion, see Fig 1

**Treatment:** Each quantity treatment was given a color name to provide color coding for the figures.

**Day 1 Length:** the length of the larva on the day it was grafted

**Day 2 Length-Day 15 Length:** The length of the larvae on each day after grafting. A “0” indicates that a larva died. A “1” indicates the larvae gut purged on that day.

**Treatment:** “Treatment” indicates and in vitro reared individual, “Ad-libitum” indicates an individual that was fed ad libitum, “Q-Control” indicates a commercially reared queen, “W-Control” indicates a worker reared in the hive.

**p:c ratio:** The ratio of protein to carbohydrate in the diet