

Table S3. Yw Strain Male Diet Response Surfaces Raw Data

| | Yeast g·dl ⁻¹ | 2.5 g·dl ⁻¹ Sugar | | | 5 g·dl ⁻¹ Sugar | | | 10 g·dl ⁻¹ Sugar | | | 20 g·dl ⁻¹ Sugar | | | 40 g·dl ⁻¹ Sugar | | |
|-----------------------------|-----------------------------|------------------------------|---------|----|----------------------------|---------|----|-----------------------------|---------|----|-----------------------------|---------|----|-----------------------------|---------|----|
| | | mean | s.e. | n | mean | s.e. | n | mean | s.e. | n | mean | s.e. | n | mean | s.e. | n |
| TAG/fly (μ g) | 40 | 1.2 | 0.34 | 10 | 2.0 | 0.20 | 8 | 5.2 | 0.54 | 10 | 15.8 | 2.72 | 10 | 14.8 | 1.11 | 5 |
| | 20 | 3.3 | 0.29 | 10 | 1.9 | 0.16 | 10 | 8.1 | 1.40 | 10 | 8.4 | 0.31 | 11 | 12.6 | 0.69 | 10 |
| | 10 | 4.3 | 0.37 | 10 | 3.5 | 0.24 | 10 | 7.2 | 0.36 | 11 | 10.6 | 0.43 | 10 | 15.2 | 0.70 | 10 |
| | 5 | 5.2 | 0.60 | 9 | 3.8 | 0.24 | 10 | 8.1 | 0.38 | 10 | 11.1 | 0.39 | 10 | 16.0 | 0.86 | 10 |
| | 2.5 | 4.8 | 0.47 | 10 | 4.8 | 0.50 | 11 | 7.6 | 0.41 | 12 | 13.6 | 0.53 | 10 | 16.1 | 0.96 | 10 |
| Prot./fly (μ g) | 40 | 50.3 | 2.04 | 10 | 50.0 | 1.91 | 8 | 52.3 | 1.41 | 10 | 53.7 | 1.17 | 10 | 45.9 | 2.14 | 5 |
| | 20 | 55.4 | 0.78 | 10 | 52.5 | 0.83 | 10 | 46.5 | 1.13 | 10 | 51.1 | 1.25 | 11 | 49.0 | 0.81 | 10 |
| | 10 | 51.8 | 2.86 | 10 | 49.1 | 1.51 | 10 | 45.9 | 0.67 | 11 | 48.5 | 1.34 | 10 | 45.7 | 0.80 | 10 |
| | 5 | 58.5 | 2.96 | 9 | 44.2 | 1.39 | 10 | 43.0 | 1.79 | 10 | 39.9 | 0.98 | 10 | 41.1 | 0.75 | 10 |
| | 2.5 | 55.4 | 1.27 | 10 | 41.6 | 1.41 | 11 | 42.7 | 2.03 | 12 | 36.0 | 1.10 | 10 | 40.3 | 1.90 | 10 |
| (TAG/ Prot.) | 40 | 0.03 | 0.01 | 10 | 0.04 | 0.00 | 8 | 0.10 | 0.01 | 10 | 0.30 | 0.06 | 10 | 0.32 | 0.01 | 5 |
| | 20 | 0.06 | 0.01 | 10 | 0.04 | 0.00 | 10 | 0.18 | 0.03 | 10 | 0.16 | 0.01 | 11 | 0.26 | 0.01 | 10 |
| | 10 | 0.08 | 0.01 | 10 | 0.07 | 0.01 | 10 | 0.16 | 0.01 | 11 | 0.22 | 0.01 | 10 | 0.33 | 0.01 | 10 |
| | 5 | 0.09 | 0.01 | 9 | 0.09 | 0.01 | 10 | 0.19 | 0.01 | 10 | 0.28 | 0.01 | 10 | 0.39 | 0.02 | 10 |
| | 2.5 | 0.09 | 0.01 | 10 | 0.12 | 0.02 | 11 | 0.18 | 0.01 | 12 | 0.38 | 0.02 | 10 | 0.41 | 0.03 | 10 |
| Food/fly /6hr (μ g) | 40 | 7.0 | 1.2 | 10 | 2.5 | 0.8 | 5 | 18.0 | 1.4 | 10 | 18.9 | 1.0 | 10 | 22.4 | 0.8 | 5 |
| | 20 | 4.2 | 0.8 | 10 | 3.7 | 1.0 | 8 | 17.0 | 2.0 | 10 | 15.1 | 1.6 | 11 | 19.3 | 0.8 | 10 |
| | 10 | 5.5 | 0.6 | 10 | 4.6 | 1.2 | 10 | 18.1 | 0.6 | 11 | 17.7 | 0.7 | 10 | 26.7 | 0.7 | 10 |
| | 5 | 9.3 | 0.4 | 9 | 9.6 | 1.1 | 10 | 23.9 | 0.7 | 10 | 26.5 | 1.1 | 10 | 35.1 | 1.5 | 10 |
| | 2.5 | 26.1 | 1.9 | 10 | 39.8 | 2.5 | 11 | 29.6 | 3.2 | 12 | 36.9 | 1.8 | 10 | 49.7 | 3.7 | 10 |
| calories/ fly/6hr | 40 | 8.4E-03 | 1.4E-03 | 10 | 3.1E-03 | 9.4E-04 | 5 | 2.4E-02 | 1.8E-03 | 10 | 2.8E-02 | 1.5E-03 | 10 | 4.0E-02 | 1.5E-03 | 5 |
| | 20 | 3.1E-03 | 5.8E-04 | 10 | 3.0E-03 | 8.3E-04 | 8 | 1.6E-02 | 1.8E-03 | 10 | 1.7E-02 | 1.8E-03 | 11 | 2.9E-02 | 1.2E-03 | 10 |
| | 10 | 2.4E-03 | 2.7E-04 | 10 | 2.4E-03 | 6.1E-04 | 10 | 1.2E-02 | 4.2E-04 | 11 | 1.6E-02 | 6.2E-04 | 10 | 3.6E-02 | 8.9E-04 | 10 |
| | 5 | 2.6E-03 | 1.2E-04 | 9 | 3.5E-03 | 4.0E-04 | 10 | 1.2E-02 | 3.9E-04 | 10 | 2.1E-02 | 8.9E-04 | 10 | 4.4E-02 | 1.8E-03 | 10 |
| | 2.5 | 5.0E-03 | 3.7E-04 | 10 | 1.1E-02 | 7.1E-04 | 11 | 1.3E-02 | 1.4E-03 | 12 | 2.7E-02 | 1.3E-03 | 10 | 5.9E-02 | 4.4E-03 | 10 |

Summary of mean and standard error values obtained during 25 nutritional treatments of adult male, yw strain flies. Triglycerides (TAG) per fly, protein (Prot.) per fly, scaled triglycerides (TAG/Prot.), and food consumption data are representative of at least 2 independent trials. n represents the number of replicates per treatment, each replicate containing 8 flies.