**Supplementary Material**

**Phenotypic plasticity in an ant with strong caste genotype association**

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**STATISTICAL METHODS**

To test (*i*) for a difference in the mean number of larvae produced between colonies headed by interlineage queens and intralineage queens, and (*ii*) for a possible effect of the colony of origin on the productivity of experimental colonies, we performed a two-way ANOVA on log transformed data (this allowed to meet the assumption of homogeneity of variances and residuals normality). To compare productivity between colonies, the number of larvae produced in each experimental colony was counted. Statistical tests were performed on the mean number of larvae produced by each colony over three weeks. Because sample sizes were unequal between categories, the two-way ANOVA was performed on weighted means. We did not test for a possible interaction between the lineage effect (interlineage or intralineage queen) and the colony of origin since too few replicates were available for each colony of origin.

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**Figure S1.** Boxplots of the mean number of larvae produced in experimental colonies of *Cataglyphis mauritanica* over a three-week survey. Colonies headed by interlineage queens (queens mated with males from the alternative lineage) produced hybrid larvae (in blue), while colonies headed by intralineage queens (queens mated with males from the same lineage) produced purebred larvae (in red). Experimental colonies (replicates) are depicted as dots and grouped by colony of origin.

**Table S1.** Mean number of larvae produced in experimental colonies of *Cataglyphis mauritanica* headed by interlineage queens (queens mated with males from the alternative lineage) or intralineage queens (queens mated with males from the same lineage). The colony of origin (from the field) and larval type produced (purbred or hybrid) by experimental colonies are given. For each colony, the mean number of larvae produced over a three-week survey is indicated.

|  |  |  |  |
| --- | --- | --- | --- |
| **Colony\_ID** | **Colony of origin** | **Larvae type** | **Mean number of larvae** |
| MAU08 | FIELD3 | hybrid | 20.7 |
| MAU09 | FIELD3 | hybrid | 16.3 |
| MAU10 | FIELD3 | hybrid | 64.0 |
| MAU23 | FIELD4 | hybrid | 31.0 |
| MAU24 | FIELD4 | hybrid | 54.3 |
| MAU11 | FIELD5 | hybrid | 26.7 |
| MAU25 | FIELD6 | hybrid | 47.3 |
| MAU26 | FIELD7 | hybrid | 39.0 |
| MAU12 | FIELD9 | hybrid | 32.0 |
| MAU13 | FIELD9 | hybrid | 65.3 |
| MAU28 | FIELD12 | hybrid | 63.0 |
| MAU29 | FIELD14 | hybrid | 75.7 |
| MAU30 | FIELD14 | hybrid | 71.3 |
| MAU31 | FIELD15 | hybrid | 61.0 |
| MAU32 | FIELD18 | hybrid | 114.3 |
| MAU33 | FIELD18 | hybrid | 64.7 |
| MAU01 | FIELD3 | purebred | 7.0 |
| MAU02 | FIELD3 | purebred | 6.0 |
| MAU15 | FIELD4 | purebred | 17.3 |
| MAU03 | FIELD5 | purebred | 6.7 |
| MAU04 | FIELD5 | purebred | 7.0 |
| MAU16 | FIELD6 | purebred | 6.7 |
| MAU17 | FIELD7 | purebred | 11.3 |
| MAU05 | FIELD9 | purebred | 9.3 |
| MAU06 | FIELD9 | purebred | 29.0 |
| MAU18 | FIELD12 | purebred | 13.0 |
| MAU19 | FIELD14 | purebred | 13.0 |
| MAU20 | FIELD14 | purebred | 6.3 |
| MAU21 | FIELD15 | purebred | 4.3 |
| MAU22 | FIELD18 | purebred | 12.7 |

**Table S2.** Genotype of the queens and their male mates (inferred from the sperm stored in the queen spermatheca) from experimental colonies, at 9 microsatellite loci.

The identity of experimental colonies (Colony\_ID), their field colony of origin, the identity of the queens and their mates (ID), the queens’ mates (*i.e.,* whether queens were mated with males from the same lineage (intralineage), or with males from the alternative lineage (interlineage)), and treatment of the brood (if any) are given. In addition, genotype data of the offspring produced by interlineage sexual reproduction in methoprene-treated colonies (hybrid new queens) and of offspring produced by intralineage sexual reproduction (purebred workers and new queens) are listed at the end of the table.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Colony\_ID** | **Colony of origin** | **ID** | **Queen’s mate** | **Treatment** | **Microsatellite loci** | | | | | | | | | | | | | | | | | |
|  |  |  |  |  | **Ch12** | | **Ch08** | | **Ch01** | | **Ch06** | | **Cc54** | | **Ch11** | | **Cc11** | | **Ch22** | | **Ch19** | |
| MAU01 | FIELD3 | MAU01\_Queen | Intra-lineage | Untreated | 101 | 101 | 149 | 149 | 174 | 188 | 193 | 193 | 207 | 219 | 233 | 233 | 243 | 255 | 295 | 299 | 305 | 309 |
| MAU01 | FIELD3 | MAU01\_Male |  | Untreated |  | 142 |  | 153 |  | 186 |  | 191 |  | 223 |  | 231 |  | 268 |  | 301 | 305 | 309 |
| MAU02 | FIELD3 | MAU02\_Queen | Intra-lineage | Untreated | 101 | 101 | 149 | 149 | 174 | 188 | 193 | 193 | 207 | 219 | 233 | 233 | 243 | 255 | 295 | 299 | 305 | 309 |
| MAU02 | FIELD3 | MAU02\_Male |  | Untreated |  | 142 |  | 153 |  | 186 |  | 191 |  | 223 |  | 231 |  | 268 |  | 301 | 305 | 309 |
| MAU03 | FIELD5 | MAU03\_Queen | Intra-lineage | Untreated | 101 | 142 | 147 | 149 | 174 | 174 | 173 | 193 | 205 | 207 | 231 | 233 | 243 | 253 | 295 | 295 | 309 | 309 |
| MAU03 | FIELD5 | MAU03\_Male |  | Untreated |  | 140 |  | 153 |  | 176 | 173 | 193 |  | 205 |  | 231 |  | 268 |  | 299 |  | 303 |
| MAU04 | FIELD5 | MAU04\_Queen | Intra-lineage | Untreated | 101 | 142 | 147 | 149 | 174 | 174 | 173 | 193 | 205 | 207 | 231 | 233 | 243 | 253 | 295 | 295 | 309 | 309 |
| MAU04 | FIELD5 | MAU04\_Male |  | Untreated |  | 140 |  | 153 |  | 176 |  | 193 |  | 207 |  | 231 |  | 268 |  | 299 |  | 303 |
| MAU05 | FIELD9 | MAU05\_Queen | Intra-lineage | Untreated | 101 | 101 | 147 | 149 | 174 | 188 | 173 | 193 | 207 | 219 | 233 | 233 | 243 | 255 | 295 | 299 | 305 | 311 |
| MAU05 | FIELD9 | MAU05\_Male |  | Untreated |  | 142 | 147 | 149 | 174 | 188 | 173 | 193 |  | 203 |  | 227 |  | 263 |  | 297 |  | 303 |
| MAU06 | FIELD9 | MAU06\_Queen | Intra-lineage | Untreated | 101 | 101 | 147 | 149 | 174 | 188 | 173 | 193 | 207 | 219 | 233 | 233 | 243 | 255 | 295 | 299 | 305 | 311 |
| MAU06 | FIELD9 | MAU06\_Male |  | Untreated |  | 101 | 147 | 149 | 174 | 188 | 173 | 193 |  | 205 |  | 233 | 243 | 255 | 295 | 299 | 305 | 311 |
| MAU08 | FIELD3 | MAU08\_Queen | Inter-lineage | Untreated | 101 | 101 | 149 | 149 | 174 | 188 | 193 | 193 | 207 | 219 | 233 | 233 | 243 | 255 | 295 | 299 | 305 | 309 |
| MAU08 | FIELD3 | MAU08\_Male |  | Untreated |  | 120 |  | 137 |  | 184 |  | 163 |  | 195 |  | 249 |  | 257 |  | 287 |  | 305 |
| MAU09 | FIELD3 | MAU09\_Queen | Inter-lineage | Untreated | 101 | 101 | 149 | 149 | 174 | 188 | 193 | 193 | 207 | 219 | 233 | 233 | 243 | 255 | 295 | 299 | 305 | 309 |
| MAU09 | FIELD3 | MAU09\_Male |  | Untreated |  | 120 |  | 137 |  | 184 |  | 163 |  | 195 |  | 237 |  | 255 |  | 287 |  | 305 |
| MAU10 | FIELD3 | MAU10\_Queen | Inter-lineage | Untreated | 101 | 101 | 149 | 149 | 174 | 188 | 193 | 193 | 207 | 219 | 233 | 233 | 243 | 255 | 295 | 299 | 305 | 309 |
| MAU10 | FIELD3 | MAU10\_Male |  | Untreated |  | 120 |  | 137 |  | 184 |  | 163 |  | 195 |  | 249 |  | 257 |  | 287 |  | 305 |
| MAU11 | FIELD5 | MAU11\_Queen | Inter-lineage | Untreated | 101 | 142 | 147 | 149 | 174 | 174 | 173 | 193 | 205 | 207 | 231 | 233 | 243 | 253 | 295 | 295 | 309 | 309 |
| MAU11 | FIELD5 | MAU11\_Male |  | Untreated |  | 122 |  | 137 |  | 184 |  | 163 |  | 189 |  | 251 |  | 243 |  | 287 |  | 305 |
| MAU12 | FIELD9 | MAU12\_Queen | Inter-lineage | Untreated | 101 | 101 | 147 | 149 | 174 | 188 | 173 | 193 | 207 | 219 | 233 | 233 | 243 | 255 | 295 | 299 | 305 | 311 |
| MAU12 | FIELD9 | MAU12\_Male |  | Untreated |  | 120 |  | 137 |  | 184 |  | 163 |  | 199 |  | 237 |  | 257 |  | 287 |  | 305 |
| MAU13 | FIELD9 | MAU13\_Queen | Inter-lineage | Untreated | 101 | 101 | 147 | 149 | 174 | 188 | 173 | 193 | 207 | 219 | 233 | 233 | 243 | 255 | 295 | 299 | 305 | 311 |
| MAU13 | FIELD9 | MAU13\_Male |  | Untreated |  | 120 |  | 133 |  | 184 |  | 163 |  | 195 |  | 235 |  | 24 |  | 287 |  | 305 |
| MAU15 | FIELD4 | MAU15\_Queen | Intra-lineage | Untreated | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 199 | 223 | 237 | 247 | 249 | 257 | 287 | 287 | 305 | 305 |
| MAU15 | FIELD4 | MAU15\_Male |  | Untreated |  | 120 |  | 133 |  | 184 |  | 163 |  | 223 |  | 237 |  | 257 |  | 287 |  | 305 |
| MAU16 | FIELD6 | MAU16\_Queen | Intra-lineage | Untreated | 122 | 122 | 137 | 137 | 184 | 184 | 163 | 163 | 189 | 193 | 249 | 251 | 243 | 255 | 287 | 287 | 305 | 305 |
| MAU16 | FIELD6 | MAU16\_Male |  | Untreated |  | 120 |  | 137 |  | 184 |  | 163 |  | 199 |  | 237 |  | 257 |  | 287 |  | 305 |
| MAU17 | FIELD7 | MAU17\_Queen | Intra-lineage | Untreated | 122 | 122 | 137 | 137 | 184 | 184 | 163 | 163 | 189 | 193 | 249 | 251 | 243 | 255 | 287 | 287 | 305 | 305 |
| MAU17 | FIELD7 | MAU17\_Male |  | Untreated |  | 120 |  | 137 |  | 184 |  | 163 |  | 223 |  | 237 |  | 249 |  | 287 |  | 305 |
| MAU18 | FIELD12 | MAU18\_Queen | Intra-lineage | Untreated | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 193 | 195 | 235 | 249 | 243 | 257 | 287 | 306 | 305 | 305 |
| MAU18 | FIELD12 | MAU18\_Male |  | Untreated |  | 122 |  | 137 |  | 182 |  | 163 |  | 187 |  | 237 |  | 249 |  | 287 |  | 305 |
| MAU19 | FIELD14 | MAU19\_Queen | Intra-lineage | Untreated | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 193 | 195 | 237 | 247 | 243 | 257 | 287 | 287 | 305 | 305 |
| MAU19 | FIELD14 | MAU19\_Male |  | Untreated |  | 126 | 133 | 137 |  | 194 |  | 163 |  | 195 |  | 235 | 243 | 257 |  | 301 |  | 305 |
| MAU20 | FIELD14 | MAU20\_Queen | Intra-lineage | Untreated | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 193 | 195 | 237 | 247 | 243 | 257 | 287 | 287 | 305 | 305 |
| MAU20 | FIELD14 | MAU20\_Male |  | Untreated |  | 126 |  | 133 |  | 182 |  | 163 | 193 | 195 |  | 235 |  | 257 |  | 287 |  | 305 |
| MAU21 | FIELD15 | MAU21\_Queen | Intra-lineage | Untreated | 126 | 126 | 135 | 137 | 182 | 182 | 163 | 163 | 191 | 193 | 235 | 249 | 255 | 257 | 308 | 308 | 305 | 305 |
| MAU21 | FIELD15 | MAU21\_Male |  | Untreated |  | 120 |  | 133 |  | 184 |  | 163 |  | 195 |  |  |  | 257 |  | 287 |  | 305 |
| MAU22 | FIELD18 | MAU22\_Queen | Intra-lineage | Untreated | 120 | 120 | 133 | 137 | 182 | 182 | 163 | 163 | 195 | 195 | 237 | 249 | 243 | 257 | 287 | 287 | 305 | 305 |
| MAU22 | FIELD18 | MAU22\_Male |  | Untreated |  | 120 |  | 137 |  | 182 |  | 163 |  | 195 |  | 249 |  | 257 |  | 287 |  | 305 |
| MAU23 | FIELD4 | MAU23\_Queen | Inter-lineage | Untreated | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 199 | 223 | 237 | 247 | 249 | 257 | 287 | 287 | 305 | 305 |
| MAU23 | FIELD4 | MAU23\_Male |  | Untreated |  | 101 |  | 149 |  | 174 |  | 193 |  | 219 |  | 233 |  | 243 |  | 299 |  | 309 |
| MAU24 | FIELD4 | MAU24\_Queen | Inter-lineage | Untreated | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 199 | 223 | 237 | 247 | 249 | 257 | 287 | 287 | 305 | 305 |
| MAU24 | FIELD4 | MAU24\_Male |  | Untreated |  | 101 |  | 149 |  | 188 |  | 193 |  | 207 |  | 233 |  | 255 |  | 299 |  | 309 |
| MAU25 | FIELD6 | MAU25\_Queen | Inter-lineage | Untreated | 122 | 122 | 137 | 137 | 184 | 184 | 163 | 163 | 189 | 193 | 249 | 251 | 243 | 255 | 287 | 287 | 305 | 305 |
| MAU25 | FIELD6 | MAU25\_Male |  | Untreated |  | 134 |  | 157 |  | 188 |  | 173 |  | 217 |  | 233 |  | 255 |  | 301 |  | 305 |
| MAU26 | FIELD7 | MAU26\_Queen | Inter-lineage | Untreated | 122 | 122 | 137 | 137 | 182 | 184 | 163 | 163 | 189 | 193 | 249 | 251 | 243 | 255 | 287 | 287 | 305 | 305 |
| MAU26 | FIELD7 | MAU26\_Male |  | Untreated |  | 101 |  | 149 |  | 174 |  | 173 |  | 219 |  | 233 |  | 255 |  | 299 |  | 305 |
| MAU28 | FIELD12 | MAU28\_Queen | Inter-lineage | Untreated | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 193 | 195 | 237 | 249 | 243 | 257 | 287 | 287 | 305 | 305 |
| MAU28 | FIELD12 | MAU28\_Male |  | Untreated |  | 140 |  | 153 |  | 176 |  | 191 |  | 205 |  | 231 |  | 268 |  | 299 |  | 303 |
| MAU29 | FIELD14 | MAU29\_Queen | Inter-lineage | Untreated | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 193 | 195 | 237 | 247 | 243 | 257 | 287 | 287 | 305 | 305 |
| MAU29 | FIELD14 | MAU29\_Male |  | Untreated |  | 142 |  | 161 |  | 174 |  | 173 |  | 223 |  | 235 |  | 268 |  | 295 |  | 309 |
| MAU30 | FIELD14 | MAU30\_Queen | Inter-lineage | Untreated | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 193 | 195 | 237 | 247 | 243 | 257 | 287 | 287 | 305 | 305 |
| MAU30 | FIELD14 | MAU30\_Male |  | Untreated |  | 101 |  | 147 |  | 174 |  | 193 |  | 219 |  | 233 |  | 243 |  | 295 |  | 305 |
| MAU31 | FIELD15 | MAU31\_Queen | Inter-lineage | Untreated | 126 | 126 | 135 | 137 | 182 | 182 | 163 | 163 | 191 | 193 | 235 | 249 | 255 | 257 | 308 | 308 | 305 | 305 |
| MAU31 | FIELD15 | MAU31\_Male |  | Untreated |  | 134 |  | 149 |  | 188 |  | 173 |  | 205 |  | 233 |  | 268 |  | 295 |  | 303 |
| MAU32 | FIELD18 | MAU32\_Queen | Inter-lineage | Untreated | 120 | 120 | 133 | 137 | 182 | 182 | 163 | 163 | 195 | 195 | 237 | 249 | 243 | 257 | 287 | 287 | 305 | 305 |
| MAU32 | FIELD18 | MAU32\_Male |  | Untreated |  | 144 |  | 161 |  | 176 |  | 191 |  | 205 |  | 231 |  | 247 |  | 295 |  | 303 |
| MAU33 | FIELD18 | MAU33\_Queen | Inter-lineage | Untreated | 120 | 120 | 133 | 137 | 182 | 182 | 163 | 163 | 195 | 195 | 237 | 249 | 243 | 257 | 287 | 287 | 305 | 305 |
| MAU33 | FIELD18 | MAU33\_Male |  | Untreated |  | 140 |  | 153 |  | 176 |  | 191 |  | 205 |  | 231 |  | 247 |  | 299 |  | 303 |
| MAU34 | FIELD25 | MAU34\_Queen | Inter-lineage | Acetone | 122 | 122 | 137 | 137 | 184 | 184 | 163 | 163 | 189 | 193 | 249 | 251 | 243 | 255 | 287 | 287 | 305 | 305 |
| MAU34 | FIELD25 | MAU34\_Male |  | Acetone |  | 136 |  | 155 |  | 176 |  | 193 |  | 205 |  | 233 |  | 247 |  | 299 |  | 303 |
| MAU35 | FIELD26 | MAU35\_Queen | Inter-lineage | Acetone | 122 | 122 | 137 | 137 | 184 | 184 | 163 | 163 | 189 | 193 | 249 | 251 | 243 | 255 | 287 | 287 | 305 | 305 |
| MAU35 | FIELD26 | MAU35\_Male |  | Acetone |  | 136 |  | 153 |  | 176 |  | 199 |  | 205 |  | 233 |  | 276 |  | 295 |  | 303 |
| MAU36 | FIELD27 | MAU36\_Queen | Inter-lineage | Acetone | 122 | 122 | 137 | 137 | 182 | 184 | 163 | 163 | 189 | 193 | 249 | 251 | 243 | 255 | 287 | 287 | 305 | 305 |
| MAU36 | FIELD27 | MAU36\_Male |  | Acetone |  | 101 |  | 147 |  | 176 |  | 191 |  | 205 |  | 231 |  | 268 |  | 299 |  | 303 |
| MAU37 | FIELD28 | MAU37\_Queen | Inter-lineage | Acetone | 120 | 120 | 133 | 137 | 182 | 182 | 163 | 163 | 195 | 195 | 237 | 249 | 243 | 257 | 287 | 287 | 305 | 305 |
| MAU37 | FIELD28 | MAU37\_Male |  | Acetone |  | 140 |  | 153 |  | 176 |  | 193 |  | 205 |  | 231 |  | 268 |  | 299 |  | 303 |
| MAU38 | FIELD23 | MAU38\_Queen | Inter-lineage | Acetone | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 193 | 195 | 237 | 247 | 243 | 257 | 287 | 287 | 305 | 305 |
| MAU38 | FIELD23 | MAU38\_Male |  | Acetone |  | 101 |  | 147 |  | 174 |  | 193 |  | 219 |  | 233 |  | 243 |  | 295 |  | 305 |
| MAU39 | FIELD8 | MAU39\_Queen | Inter-lineage | Acetone | 142 | 142 | 149 | 161 | 174 | 174 | 189 | 189 | 205 | 223 | 231 | 235 | 253 | 268 | 295 | 295 | 303 | 309 |
| MAU39 | FIELD8 | MAU39\_Male |  | Acetone |  | 120 |  | 137 |  | 184 |  | 163 |  | 199 |  | 247 |  | 249 |  | 287 |  | 305 |
| MAU40 | FIELD16 | MAU40\_Queen | Inter-lineage | Acetone | 134 | 134 | 153 | 159 | 176 | 188 | 173 | 193 | 221 | 221 | 233 | 233 | 247 | 255 | 295 | 295 | 303 | 309 |
| MAU40 | FIELD16 | MAU40\_Male |  | Acetone |  | 120 |  | 137 |  | 182 |  | 163 |  | 193 |  | 249 |  | 257 |  | 287 |  | 305 |
| MAU41 | FIELD27 | MAU41\_Queen | Inter-lineage | Methoprene | 122 | 122 | 137 | 137 | 182 | 184 | 163 | 163 | 189 | 193 | 249 | 251 | 243 | 255 | 287 | 287 | 305 | 305 |
| MAU41 | FIELD27 | MAU41\_Male |  | Methoprene |  | 101 |  | 149 |  | 174 |  | 173 |  | 219 |  | 233 |  | 255 |  | 299 |  | 305 |
| MAU42 | FIELD17 | MAU42\_Queen | Inter-lineage | Methoprene | 120 | 120 | 133 | 137 | 182 | 184 | 163 | 163 | 193 | 195 | 237 | 249 | 243 | 257 | 287 | 287 | 305 | 305 |
| MAU42 | FIELD17 | MAU42\_Male |  | Methoprene |  | 134 |  | 159 |  | 188 |  | 193 |  | 221 |  | 233 |  | 255 |  | 295 |  | 309 |
| MAU43 | FIELD20 | MAU43\_Queen | Inter-lineage | Methoprene | 120 | 120 | 137 | 137 | 182 | 182 | 163 | 163 | 187 | 195 | 235 | 237 | 249 | 255 | 287 | 306 | 305 | 305 |
| MAU43 | FIELD20 | MAU43\_Male |  | Methoprene |  | 101 |  | 149 |  | 174 |  | 193 |  | 207 |  | 231 |  | 257 |  | 295 |  | 303 |
| MAU44 | FIELD28 | MAU44\_Queen | Inter-lineage | Methoprene | 120 | 120 | 133 | 137 | 182 | 182 | 163 | 163 | 195 | 195 | 237 | 249 | 243 | 257 | 287 | 287 | 305 | 305 |
| MAU44 | FIELD28 | MAU44\_Male |  | Methoprene |  | 144 |  | 161 |  | 176 |  | 191 |  | 205 |  | 231 |  | 247 |  | 295 |  | 303 |
| MAU45 | FIELD4 | MAU45\_Queen | Inter-lineage | Methoprene | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 199 | 223 | 237 | 247 | 249 | 257 | 287 | 287 | 305 | 305 |
| MAU45 | FIELD4 | MAU45\_Male |  | Methoprene |  | 101 |  | 149 |  | 188 |  | 193 |  | 207 |  | 233 |  | 255 |  | 299 |  | 309 |
| MAU46 | FIELD16 | MAU46\_Queen | Inter-lineage | Methoprene | 134 | 134 | 153 | 159 | 176 | 188 | 173 | 193 | 221 | 221 | 233 | 233 | 247 | 255 | 295 | 295 | 303 | 309 |
| MAU46 | FIELD16 | MAU46\_Male |  | Methoprene |  | 120 |  | 137 |  | 182 |  | 163 |  | 193 |  | 249 |  | 257 |  | 287 |  | 305 |
| MAU47 | FIELD22 | MAU47\_Queen | Inter-lineage | Methoprene | 140 | 140 | 153 | 161 | 176 | 176 | 191 | 193 | 205 | 205 | 231 | 231 | 247 | 268 | 299 | 299 | 303 | 303 |
| MAU47 | FIELD22 | MAU47\_Male |  | Methoprene |  | 120 |  | 133 |  | 184 |  | 163 |  | 195 |  | 249 |  | 243 |  | 287 |  | 305 |
| MAU48 | FIELD10 | MAU48\_Queen | Inter-lineage | Methoprene | 140 | 142 | 149 | 161 | 174 | 188 | 173 | 191 | 205 | 223 | 231 | 235 | 253 | 268 | 295 | 295 | 303 | 309 |
| MAU48 | FIELD10 | MAU48\_Male |  | Methoprene |  | 120 |  | 137 |  | 184 |  | 163 |  | 193 |  | 237 |  | 243 |  | 287 |  | 305 |
| MAU49 | FIELD19 | MAU49\_Queen | Inter-lineage | Methoprene | 134 | 134 | 153 | 159 | 176 | 188 | 173 | 193 | 221 | 221 | 233 | 233 | 247 | 255 | 295 | 295 | 303 | 309 |
| MAU49 | FIELD19 | MAU49\_Male |  | Methoprene |  | 120 |  | 133 |  | 184 |  | 163 |  | 195 |  | 249 |  | 243 |  | 287 |  | 305 |
| MAU50 | FIELD21 | MAU50\_Queen | Inter-lineage | Methoprene | 134 | 134 | 153 | 161 | 188 | 188 | 191 | 191 | 223 | 227 | 231 | 231 | 253 | 278 | 295 | 301 | 305 | 309 |
| MAU50 | FIELD21 | MAU50\_Male |  | Methoprene |  | 122 |  | 137 |  | 182 |  | 163 |  | 187 |  | 235 |  | 255 |  | 306 |  | 305 |
| MAU51 | FIELD1 | MAU51\_Queen | Inter-lineage | Methoprene | 101 | 134 | 149 | 157 | 188 | 188 | 173 | 193 | 219 | 225 | 233 | 233 | 243 | 255 | 299 | 301 | 301 | 305 |
| MAU51 | FIELD1 | MAU51\_Male |  | Methoprene |  | 120 |  | 133 |  | 184 |  | 163 |  | 223 |  | 247 |  | 257 |  | 287 |  | 305 |
| MAU52 | FIELD24 | MAU52\_Queen | Inter-lineage | Methoprene | 101 | 142 | 147 | 149 | 174 | 174 | 173 | 193 | 205 | 207 | 231 | 233 | 243 | 253 | 295 | 295 | 309 | 309 |
| MAU52 | FIELD24 | MAU52\_Male |  | Methoprene |  | 126 |  | 137 |  | 184 |  | 163 |  | 193 |  | 247 |  | 255 |  | 287 |  | 305 |
| MAU53 | FIELD2 | MAU53\_Queen | Inter-lineage | Methoprene | 101 | 101 | 147 | 149 | 174 | 188 | 173 | 193 | 207 | 219 | 233 | 233 | 243 | 255 | 295 | 299 | 305 | 311 |
| MAU53 | FIELD2 | MAU53\_Male |  | Methoprene |  | 120 |  | 133 |  | 184 |  | 163 |  | 223 |  | 247 |  | 257 |  | 287 |  | 305 |
| Hybrid new-queens |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MAU41 | FIELD27 | MAU41\_New Queen01 | Unmated |  | 101 | 122 | 137 | 149 | 174 | 182 | 163 | 173 | 193 | 219 | 233 | 251 | 243 | 255 | 287 | 299 | 305 | 305 |
| MAU41 | FIELD27 | MAU41\_New Queen02 | Unmated |  | 101 | 122 | 137 | 149 | 174 | 182 | 163 | 173 | 189 | 219 | 233 | 251 | 243 | 255 | 287 | 299 | 305 | 305 |
| MAU41 | FIELD27 | MAU41\_New Queen03 | Unmated |  | 101 | 122 | 137 | 149 | 174 | 182 | 163 | 173 | 193 | 219 | 233 | 249 | 243 | 255 | 287 | 299 | 305 | 305 |
| MAU41 | FIELD27 | MAU41\_New Queen04 | Unmated |  | 101 | 122 | 137 | 149 | 174 | 184 | 163 | 173 | 193 | 219 | 233 | 249 | 255 | 255 | 287 | 299 | 305 | 305 |
| MAU41 | FIELD27 | MAU41\_New Queen05 | Unmated |  | 101 | 122 | 137 | 149 | 174 | 182 | 163 | 173 | 189 | 219 | 233 | 251 | 255 | 255 | 287 | 299 | 305 | 305 |
| MAU41 | FIELD27 | MAU41\_New Queen06 | Unmated |  | 101 | 122 | 137 | 149 | 174 | 184 | 163 | 173 | 193 | 219 | 233 | 249 | 255 | 255 | 287 | 299 | 305 | 305 |
| MAU42 | FIELD17 | MAU42\_New Queen01 | Unmated |  | 120 | 134 | 133 | 159 | 182 | 188 | 163 | 193 | 193 | 221 | 233 | 237 | 255 | 257 | 287 | 295 | 305 | 309 |
| MAU42 | FIELD17 | MAU42\_New Queen02 | Unmated |  | 120 | 134 | 137 | 159 | 182 | 188 | 163 | 193 | 195 | 221 | 233 | 249 | 243 | 255 | 287 | 295 | 305 | 309 |
| MAU42 | FIELD17 | MAU42\_New Queen03 | Unmated |  | 120 | 134 | 137 | 159 | 182 | 188 | 163 | 193 | 195 | 221 | 233 | 249 | 255 | 257 | 287 | 295 | 305 | 309 |
| MAU42 | FIELD17 | MAU42\_New Queen04 | Unmated |  | 120 | 134 | 133 | 159 | 182 | 188 | 163 | 193 | 193 | 221 | 233 | 237 | 255 | 257 | 287 | 295 | 305 | 309 |
| MAU49 | FIELD19 | MAU49\_New Queen01 | Unmated |  | 120 | 134 | 133 | 159 | 176 | 184 | 163 | 193 | 195 | 221 | 233 | 249 | 243 | 255 | 287 | 295 | 305 | 309 |
| Purebred new queens |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MAU04 | FIELD5 | MAU04\_New Queen01 | Unmated |  | 140 | 142 | 147 | 153 | 174 | 176 | 173 | 193 | 205 | 207 | 231 | 231 | 243 | 268 | 295 | 299 | 303 | 309 |
| MAU15 | FIELD4 | MAU15\_New Queen01 | Unmated |  | 120 | 120 | 133 | 133 | 184 | 184 | 163 | 163 | 199 | 223 | 237 | 237 | 257 | 257 | 287 | 287 | 305 | 305 |
| MAU15 | FIELD4 | MAU15\_New Queen02 | Unmated |  | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 223 | 223 | 237 | 237 | 249 | 257 | 287 | 287 | 305 | 305 |
| MAU15 | FIELD4 | MAU15\_New Queen03 | Unmated |  | 120 | 120 | 133 | 133 | 184 | 184 | 163 | 163 | 223 | 223 | 237 | 237 | 249 | 257 | 287 | 287 | 305 | 305 |
| MAU15 | FIELD4 | MAU15\_New Queen04 | Unmated |  | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 199 | 223 | 237 | 247 | 249 | 257 | 287 | 287 | 305 | 305 |
| MAU15 | FIELD4 | MAU15\_New Queen05 | Unmated |  | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 199 | 223 | 237 | 247 | 249 | 257 | 287 | 287 | 305 | 305 |
| MAU15 | FIELD4 | MAU15\_New Queen06 | Unmated |  | 120 | 120 | 133 | 137 | 184 | 184 | 163 | 163 | 199 | 223 | 237 | 247 | 249 | 257 | 287 | 287 | 305 | 305 |
| MAU15 | FIELD4 | MAU15\_New Queen07 | Unmated |  | 120 | 120 | 133 | 133 | 184 | 184 | 163 | 163 | 223 | 223 | 237 | 247 | 257 | 257 | 287 | 287 | 305 | 305 |
| MAU17 | FIELD7 | MAU17\_New Queen01 | Unmated |  | 120 | 122 | 137 | 137 | 184 | 184 | 163 | 163 | 189 | 223 | 237 | 251 | 243 | 249 | 287 | 287 | 305 | 305 |
| MAU17 | FIELD7 | MAU17\_New Queen02 | Unmated |  | 120 | 122 | 137 | 137 | 184 | 184 | 163 | 163 | 193 | 223 | 237 | 249 | 249 | 255 | 287 | 287 | 305 | 305 |
| MAU17 | FIELD7 | MAU17\_New Queen03 | Unmated |  | 120 | 122 | 137 | 137 | 184 | 184 | 163 | 163 | 193 | 223 | 237 | 251 | 243 | 249 | 287 | 287 | 305 | 305 |
| MAU18 | FIELD12 | MAU18\_New Queen01 | Unmated |  | 120 | 122 | 133 | 137 | 182 | 184 | 163 | 163 | 187 | 193 | 237 | 249 | 243 | 249 | 287 | 306 | 305 | 305 |
| Purebred worker |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MAU18 | FIELD 12 | MAU18\_Worker01 | / |  | 120 | 122 | 133 | 137 | 182 | 184 | 163 | 163 | 187 | 193 | 237 | 237 | 243 | 249 | 287 | 287 | 305 | 305 |