Protocol for seed sowing March 2016

* Seeds from 16 populations (see table below): 9 with and 7 without butterflies.
* Seeds coming from crosses performed in common garden (50+ fruits available)

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| **Population ID** | **Butterfly** | **N fruits available** |
| Ale001 | Yes | 12 |
| Ale010 | No | 50 |
| Bor012 | No | 0 |
| Göt009a | Yes | 70+ |
| Göt009b | Yes |
| Göt016 | Yes | approx. 50 |
| Her003 | Yes | 0 |
| Her004 | Yes | approx. 50 |
| Her005 | Yes | approx. 20 |
| Ler010 | Yes | 17 |
| Mar001 | No | 50 |
| Par003 | Yes | 21 + 52 from site nearby |
| Sve001 | No | 49 |
| Sve005 | No | 52 |
| Sve011 | No | 51 |
| Sve013 | No | 50 |
| Tra001 | No | 5 |
| Tra002 | No | 0 |
| Vår004 | Yes | approx. 50 |
| Vår009 | Yes | 50+ |

In the lab

For the seeds from the 16 populations: Take 20 fruits (i.e. “source” individuals) per population when possible, otherwise take all fruits available. Open each fruit on a petri dish, take approximately half of the seeds for sowing and leave the rest into the bag for further use (to keep the same number of individuals available in case seeds fail to germinate). The seeds taken for sowing from all 20 fruits per population are mixed into a common bag labelled with population ID. Take these bags to the planting room.

In the planting room

Use 8 x 8 cm pots. Fill the pots with sowing substrate (2/3 peat + 1/3 sand) and let them soak in water in the sink for some minutes, then let them drain the excess water. Afterwards put some fine substrate on top of them (peat mixed with fine sand) with a sieve. Label each pot before sowing the seeds. Write on label with pencil and on the pot with permanent marker if possible.

Would need 370+ pots (prepare them in batches of 20).

For the seeds from the 16 populations: Divide the seed mixes from each population into 20 similar parts (use petri dishes) and sow each part in a pot (20 pots x 16 populations = 320 pots). Label each pot with sowing date and Population ID + Replicate ID (1-20).

For the seeds from the crosses: Take all fruits available. Open each fruit on a petri dish, take approximately half of the seeds for sowing and leave the rest into the bag for further use. Sow the seeds from each fruit in one pot and label with sowing date and Father ID x Mother ID (as written on the fruit bag). Needed 50+ pots (one per fruit).

Sow the seeds on the corresponding pot on the surface of the substrate, without pressing them down. Do not cover them with soil.

Take everything to the common garden. Cover the pots with white mesh.