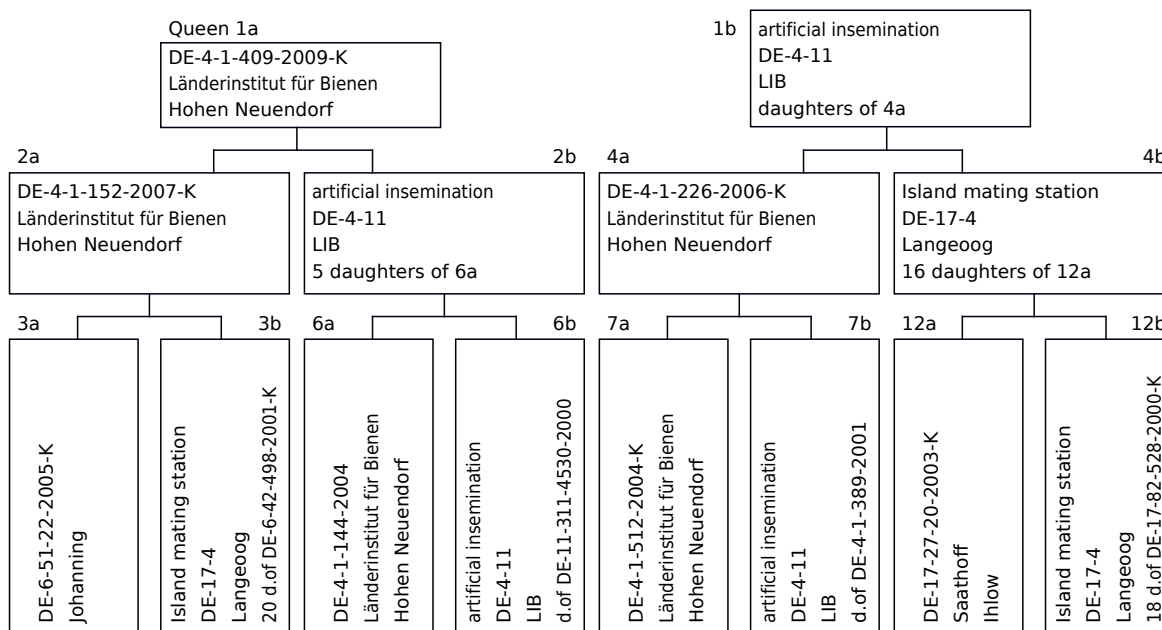


Tester of the queen: Länderinstitut für Bienenkunde, 16540 Hohen Neuendorf, DE-4-1, Apiary 1
 Breeder of the queen: Länderinstitut für Bienenkunde, 16540 Hohen Neuendorf, DE-4-1
1a Studbook number: **DE-4-1-409-2009-K**

Race line: -33 Sign: green 9 Daughters of Queen: 0%
 Generation: Hatch date: 23.06.2009 Workers: 0.6%

A. Pedigree



B. Own performance

| Performance test year | No. of the colony 44 | | | comparable colonies at the apiary | |
|---|----------------------|-----------------|---------|-----------------------------------|------------------|
| | kg | % | Ranking | number | Yield average kg |
| | 74.4 | 136.8 | 1 | 20 | 54.4 |
| | Assessment* | Breeding values | | | Reliability |
| Total breeding value¹ | - | 121 | | | |
| Honey yield | - | 128 | | | 0.42 |
| Defensive behavior | 3.70 | 119 | | | 0.63 |
| Steadiness on comb | 3.50 | 120 | | | 0.66 |
| Swarming drive | 4 | 118 | | | 0.42 |
| Varroa | - | 109 | | | 0.52 |
| Performance index | - | 0 | | | |
| Robustness in winter | 3 | | 70% | 100% | 170% |
| Development in Spring | 3 | | | | |
| Colony strength | 3.50 | | | | |

¹In accordance with the resolution of the breeder convention of 9th April 2011, for the total breeding value, Varroa tolerance is weighted by 40% and honey yield, gentleness, calmness during inspection, and swarming tendency are each weighted by 15%.

C. Performance of the sisters

See page 2

D. Body features, see appendix

See attached characteristic documents:

E. Results

Class Av

Selected for Varroa tolerance. Suitable for breeding with no restrictions; suitable for use as a 4a colony at frequently visited mating stations.

Breeding selection report DE-4-1-409-2009-K

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Performance of the sisters

Amount of checked sisters: 7

| Studbook number | Tester of the queen | Apiary | Total breeding value | Yield kg | Breeding Value Honey | Defensive behavior | Breeding Value Defensive Behavior | Calmness during inspection | Breeding Value Calmness | Swarming drive | Breeding Value Swarming | Varroa-index | Performance index |
|-------------------|---------------------|--------|----------------------|----------|----------------------|--------------------|-----------------------------------|----------------------------|-------------------------|----------------|-------------------------|--------------|-------------------|
| DE-4-1-407-2009 | DE-4-1 | 1 | 113 | 60.6 | 113 | 3.6 | 113 | 3.4 | 113 | 3.7 | 113 | 106 | |
| DE-4-1-408-2009 | DE-4-1 | 1 | 108 | 62.1 | 115 | 3.6 | 112 | 3.1 | 112 | 4 | 112 | 96 | |
| DE-4-1-409-2009-K | DE-4-1 | 1 | 121 | 74.4 | 128 | 3.7 | 119 | 3.5 | 120 | 4 | 118 | 109 | |
| DE-4-1-416-2009 | DE-4-1 | 2 | 105 | 50.4 | 112 | 3.4 | 103 | 3.2 | 104 | 2.9 | 98 | 103 | |
| DE-4-1-417-2009 | DE-4-1 | 2 | 107 | 40.5 | 105 | 3.8 | 116 | 3.4 | 116 | 2.6 | 101 | 98 | |
| DE-4-1-418-2009-K | DE-4-1 | 2 | 111 | 49.5 | 114 | 3.6 | 112 | 3.5 | 112 | 3.8 | 110 | 104 | |
| DE-4-1-419-2009 | DE-4-1 | 2 | 109 | 52.3 | 115 | 3.6 | 111 | 3.4 | 111 | 1 | 97 | 104 | |