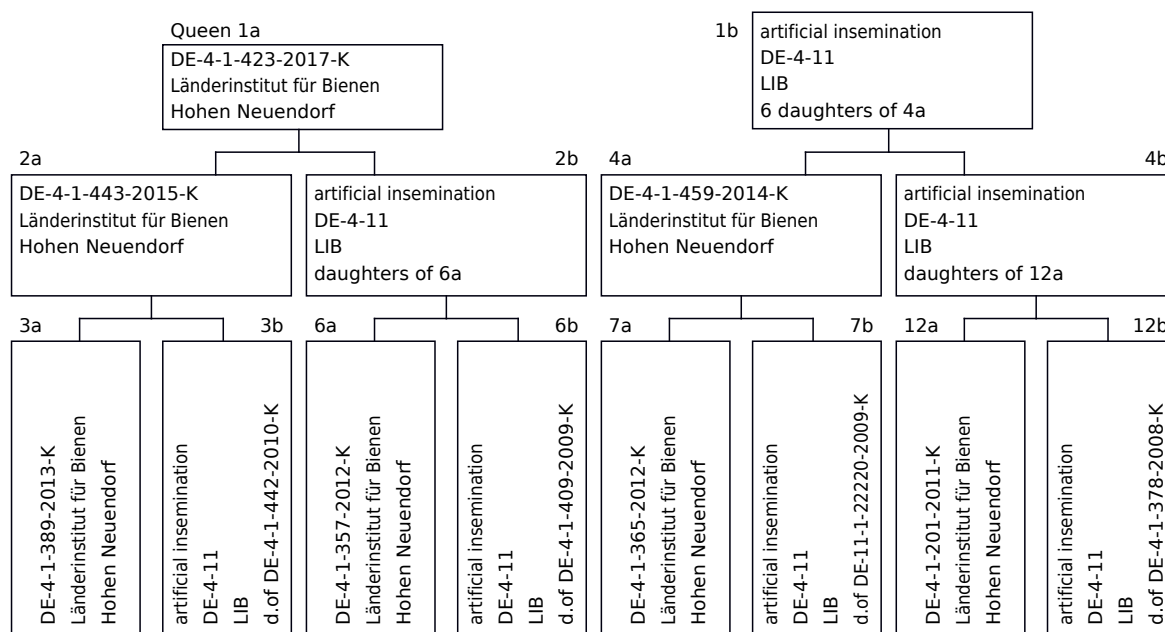


Tester of the queen: Länderinstitut für Bienenkunde, 16540 Hohen Neuendorf, DE-4-1, Apiary 1
 Breeder of the queen: Länderinstitut für Bienenkunde, 16540 Hohen Neuendorf, DE-4-1
1a Studbook number: **DE-4-1-423-2017-K**

Race line: -33 Sign: yellow 23 Daughters of Queen: 9.7%
 Generation: Hatch date: 26.06.2017 Workers: 8.4%

A. Pedigree



B. Own performance

Performance test year	No. of the colony 207			comparable colonies at the apiary		
	kg	%	Ranking	number	Yield average kg	
	61.3	111.7	9	25	54.9	
	Assessment*	Breeding values			Reliability	
Total breeding value¹	-	104	■			
Honey yield	-	104	■			0.45
Defensive behavior	3.40	108	■			0.65
Steadiness on comb	3.30	107	■			0.65
Swarming drive	4	106	■			0.41
Varroa	-	96	■			0.38
Performance index	-	0				
Robustness in winter	2.80	70% 100% 170%				
Development in Spring	3					
Colony strength	3.30					

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-4-1-423-2017-K

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Performance of the sisters

Amount of checked sisters: 13

Studbook number	Tester of the queen	Apiary	Total breeding value	Yield kg	Breeding Value Honey	Defensive behavior	Breeding Value Defensive	Calmness during inspection	Breeding Value Calmness	Swarming drive	Breeding Value Swarming	Varroa-index	Performance ndex
DE-4-1-423-2017-K	DE-4-1	1	104	61.3	104	3.4	108	3.3	107	4	106	96	
DE-4-1-428-2017	DE-4-1	1	82	44.4	71	3.5	88	3.3	90	4	89	86	82
DE-4-1-433-2017	DE-4-1	1	83	36.6	74	3.4	85	3.3	87	4	90	89	81
DE-4-1-435-2017	DE-4-1	1	84	51.2	73	3.4	87	3.4	89	4	90	90	82
DE-4-1-418-2017	DE-4-1	2	81	63.2	76	3.4	85	3.4	87	3.8	88	84	81
DE-4-1-422-2017	DE-4-1	2	83	59.2	75	3.3	83	3.2	85	4	91	90	80
DE-4-1-431-2017	DE-4-1	2	83	56	75	3.3	83	3.1	84	4	90	90	80
DE-4-1-432-2017	DE-4-1	2	83	44.7	72	3.5	87	3.2	88	4	89	89	81
DE-4-1-436-2017-K	DE-4-1	2	112	68.2	112	3.5	109	3.5	109	4	108	106	
DE-4-1-419-2017-K	DE-4-1	3	107	50.9	104	3.4	107	3.4	107	4.0	106	102	
DE-4-1-421-2017	DE-4-1	3	81	43.4	74	3.1	82	3.3	85	4.0	90	86	80
DE-4-1-425-2017	DE-4-1	3	82	54.4	76	3.1	82	3.4	85	4.0	92	88	81
DE-4-1-427-2017	DE-4-1	3	85	77.8	82	3.2	80	3.2	82	4.0	95	93	82