

#### BPA Conservation Breeding Plan 2021 Large Black



With 23 sow lines the Large Blacks are the traditional breed with the second highest number of female bloodlines. Couple this with a relatively small population and the twin targets of a minimum of five sows in at least five herds present a significant challenge. Since 2017 the Large Black Pig Breeders Club have co-ordinated a programme with the breeders to improve numbers and distribution of several at risk lines including Bess, Flame, Larkspur and Golden Harvest. All these lines now meet the target of 5 sows and 5 herds and only the Princess line is kept in less than 5 herds. To have at least 5 sows in all 23 female lines and all bar one of the lines present in 5 herds is a fantastic achievement for a breed with one of the smallest sow populations.

Mem	bers ke	eping t	his sow	line	Sow Line	Total Sows				
2020	2019	2018	2017	2004		2020	2019	2018	2017	2004
5	3	5	6	20	Bess	5	3	6	8	33
14	13	16	24	1	Black Lady	23	20	20	33	2
13	12	8	10	10	Blackie	17	18	13	14	16
10	8	5	5	4	Constance	15	11	7	5	6
6	5	7	10	15	Diana	8	9	10	13	22
11	14	10	8	8	Doreen	24	33	27	25	11
5	8	12	10	1	Dorothy	10	15	15	15	4
5	6	6	5	6	Fashion	8	10	11	11	14
6	3	3	4	5	Flame	13	5	8	11	5
15	8	7	5	5	Gold Vase	24	10	9	8	6
6	4	4	3	3	Golden Harvest	7	8	6	5	3
5	5	4	5	5	Grandeur	12	11	11	7	6
12	12	12	11	8	Jewel	19	21	17	18	19
6	5	3	6	10	Julia	6	6	4	8	11
5	4	8	8	10	Larkspur	7	6	12	11	10
9	7	8	8	9	Maid	20	16	22	24	9
21	18	23	18	10	Matilda	36	40	65	51	14
14	9	9	13	13	Nocturne	20	18	13	17	23
4	5	6	6	5	Princess	8	12	12	11	3
7	7	7	8	11	Queen	10	10	12	27	14
8	7	6	10	8	Skylark	10	10	11	14	7
11	11	6	5	9	Sunshine	14	13	9	6	10
6	7	6	7	11	Warbler	9	13	14	13	11
					Total	325	318	334	355	259
Percent	age of s	ows w	ith purel	ored litte	ers	46%	46%	50%	55%	

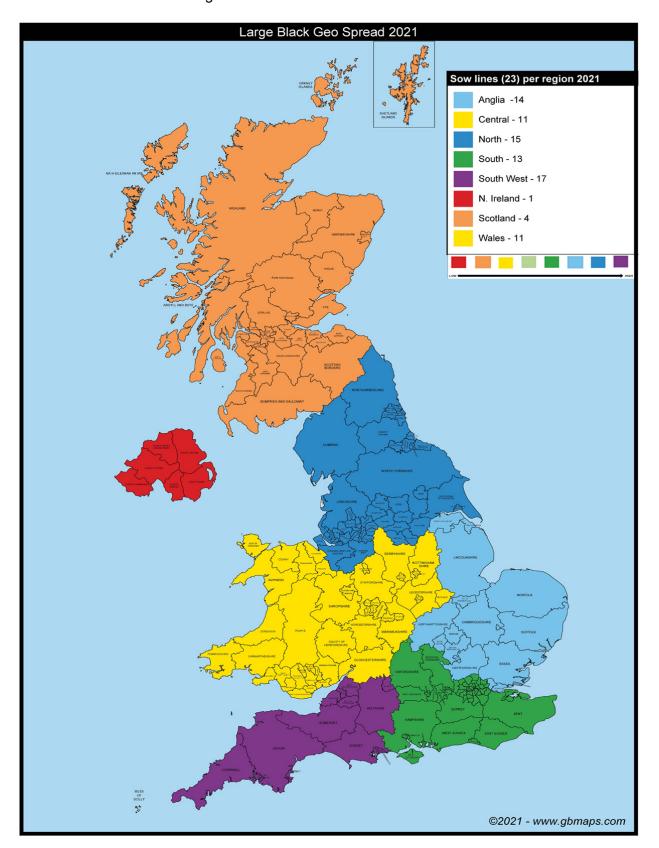
Members keeping this boar line					Boar Line	Registered Boars				
2020	2019	2018	2017	2004		2020	2019	2018	2017	2004
7	8	6	7	5	Attempt	7	9	6	7	5
11	13	14	13	13	Defender	11	13	14	14	14
20	20	22	23	22	Majestic	21	23	24	28	22
9	7	11	11	11	Majestic Eagle	9	8	13	12	8
9	9	12	12	11	Malcolm	11	11	13	12	10
9	10	8	7	10	Super	10	11	9	9	10
					Total	69	75	79	82	69
Membe	Members keeping registered pigs						119	127	128	

Boar lines all meet the 5 and 5 target but almost one third of the boars in the herd are from the Majestic line and it would good if we could have a slightly more even spread across all 6 lines.



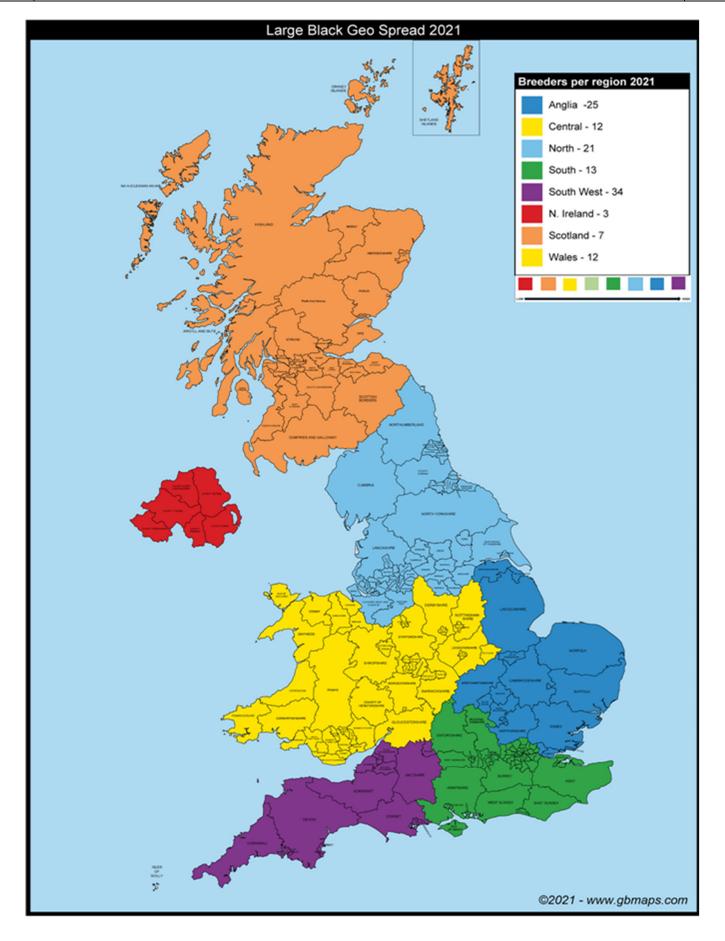


This year's graphs use a sliding rainbow scale from red to purple. The colours do not represent particular values as the range of lines and breeders between breeds is very wide. What they do show for each breed is where the breed is strongest in terms of lines and breeders and where it is weakest













These tables show in more detail the progress being made to establish all the lines in as many regions as possible. Green indicates that the number of lines or regions has improved or the maximum has been achieved. Amber indicates stability and red shows where numbers have gone backwards.

region	Anglia	Central	North	South	South West	N. Ireland	Scotland	Wales	2020 Regions with this line	2019 Regions with this line
Bess	0	0	0	3	2	0	0	0	2	2
Black Lady	10	3	1	5	4	0	0	0	5	4
Blackie	5	3	3	1	2	0	0	0	5	6
Constance	0	1	0	0	4	0	4	5	4	2
Diana	1	0	6	1	0	0	0	0	3	4
Doreen	0	1	0	4	14	0	0	5	4	5
Dorothy	0	6	2	0	1	1	0	0	4	5
Fashion	3	1	0	0	1	0	0	3	4	4
Flame	11	0	0	0	2	0	0	0	2	1
Gold Vase	5	1	1	3	6	0	5	3	7	6
Golden Harvest	0	1	2	4	0	0	0	0	3	2
Grandeur	7	0	4	0	0	0	0	1	3	3
Jewel	15	0	0	1	3	0	0	0	3	4
Julia	0	0	2	2	2	0	0	0	3	2
Larkspur	0	0	1	2	0	0	0	4	3	3
Maid	6	0	0	0	12	0	0	2	3	3
Matilda	4	7	8	1	10	0	2	4	7	7
Nocturne	1	0	2	2	13	0	0	1	5	4
Princess	8	0	0	0	0	0	0	0	1	2
Queen	3	0	6	0	1	0	0	0	3	3
Skylark	0	2	2	0	5	0	0	1	4	4
Sunshine	1	1	5	1	1	0	0	4	6	5
Warbler	0	0	5	0	0	0	4	0	2	2
Total sows / region	80	27	50	30	83	1	15	33		
2020 Sow lines / region	14	11	15	13	17	1	4	11		
2019 Sow lines / region	15	12	16	13	17	2	5	12		
	1		Tota	ıl UK	Large	Bla	ck S	ows	319	

The Large Black breed is strongest in the South West region both in terms of sows, lines and breeders. We have seen a decline in the number of lines in all the other regions but for a breed with so many sow lines and so few sows it is well represented in the other English regions providing a solid base for the future. The Princess line is the only line not present in at least 2 regions.





region	Anglia	Central	North	South	South West	N. Ireland	Scotland	Wales	2020 Regions with this line	2019 Regions with this line
Attempt	3	0	1	1	2	0	0	0	4	5
Defender	1	2	1	3	2	0	2	0	6	7
Majestic	6	2	4	0	3	2	1	2	7	6
Majestic Eagle	4	0	0	1	2	0	1	1	5	4
Malcolm	2	0	2	0	4	0	0	3	4	5
Super	3	0	2	1	3	0	1	0	5	4
Total Boars / region	19	4	10	6	16	2	5	6		
2020 Boar lines / region	6	2	5	4	6	1	4	3		
2019 Boar lines / region	5	5	5	4	6	1	2	3		
2020 Breeders /Region	25	12	21	13	34	3	7	12		
2019 Breeders /Region	22	13	18	15	25	3	8	12		
Total UK Large Black Boars			8	Tot	127					

Boar lines are well distributed around the English regions with 2 regions having all 6 lines and each of the lines present in at least 4 regions.



### **BPA Conservation Breeding Plan 2021 Genebanking and Genetic Health**

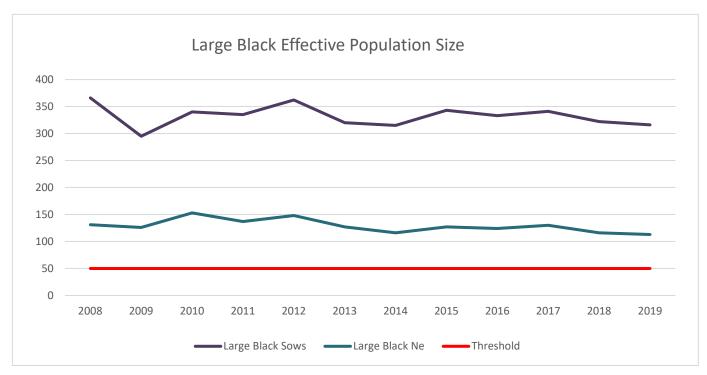


Only one more boar is needed to complete the interim target of 10 boars.

HB Reg No	Name	Ear No	DOB	IB				
CBJ/190	Westerly Majestic 190	CBJ/190	10/03/2002	0.0374				
R000455LB	Bilgrm Defender 14	BBL/14	07/07/2005	0.0372				
R000907LB	Sock Attempt 15	SOK/3106	05/03/2007	0.0333				
R001442LB	Crane Majestic Eagle 3	CRW/439	05/08/2009	0.0365				
R001661LB	Sock Super26th	SOK/3482	02/01/2011	0.0242				
R002180LB	Donagheragh Malcolm 61	KBB/61	04/12/2012	0.0388				
R002312LB	Donagheragh Super 93	KBB/93	28/10/2013	0.0198				
R003103LB	Framfield Majestic 203	NMA/203	01/09/2017	0.0064				
R003362LB	Luckygeorge Majestic 2	LGP/33	02/01/2019	0.0134				
Inbreeding Coefficient for the Large Black Genebank								

The inbreeding co-efficient of the national herd is much higher than that of the boars in the genebank. The boars in the genebank go through a very careful selection process which cannot be applied to all the different breeders across the country. We are beginning a programme to encourage breeders with sows that are least related to the national population to keep progeny from those litters and breed them back into the herd. This is a very long and complex process but it is vitally important that we try to develop this type of programme for the future. We hope very much that the new agriculture bill with its emphasis on native breeds will help us develop this programme in the future.

Mean Inbreeding for the UK Large Black Population: 2019: 0.0420 2020: 0.0398



Effective population (Ne) size is a measure of the genetic health of the breed. It is calculated as part of the National Inventory of Farm Animal Genetic Resources maintained by Defra based on the annual bloodline survey figures for the UK that we supply. Our 2020 figures will be added in May this year when the inventory is updated. The effective population size of all our native breeds is used in an index as part of the UK monitoring of biodiversity as part of our commitments under the Convention on Biodiversity to which the UK is a signatory. The effective population size is linked to the actual population but there are ways in which we manage this even when sow numbers are falling and this will be our challenge whenever we are faced with difficult times for pedigree breeders.



### BPA Conservation Breeding Plan 2021 Genebanking and Genetic Health



#### Large Black Objectives for 2021

- Improve the numbers and distribution of the Princess, Queen & Warbler lines.
- Select a final boar for the genebank unrelated to both the tank and the general population.
- Identify pigs of breeding age with no birth notified progeny which are the least related to the general population and encourage pure breeding.