Grassroots Sparks

Step by Step User Guide

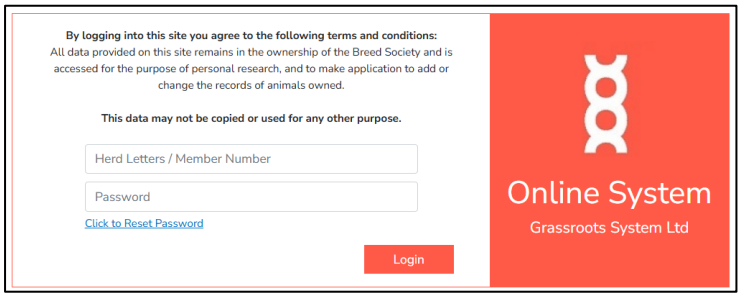
Sparks is a tool which can be used to help find potential mates. It is based on pedigrees and calculates the degree of relationship between animals.

It is designed to help maintain genetic diversity within the breed, without increasing inbreeding.

It uses the kinship between every possible pairing in the population, and suggests those mating which are recommend, or to be avoided.

Log into the Grassroots Farmers Online https://farmers.grassroots.co.uk/Home

Or via the link on your breed Society website, https://eriskaypony.org/services-2/ (bottom of page) using your member number and a password you can set up yourself. If you don't yet have a password, or have forgotten it, click on the **forgot password button** and you will be sent an email link to reset.

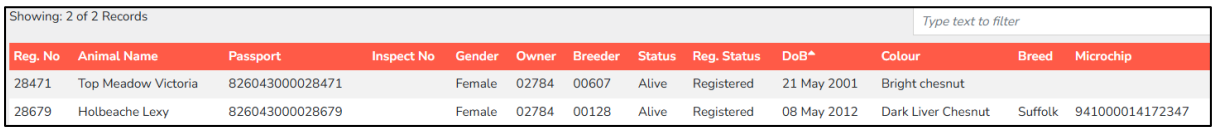


To use Grassroots Sparks

Once you have logged in, Click on the menu icon – top right

Select **Sparks**

A list of the females in your registered ownership will be displayed.

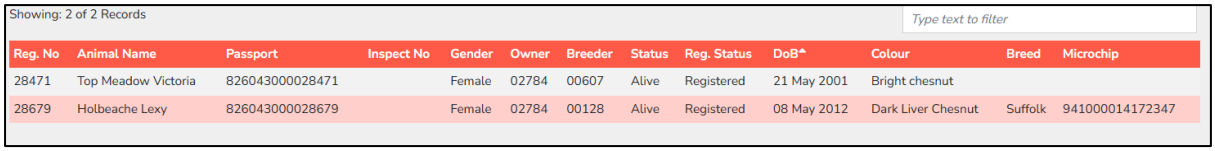


Showing: 2 of 2 Records — Type text to filter

Reg. No	Animal Name	Passport	Inspect No	Gender	Owner	Breeder	Status	Reg. Status	DoB	Colour	Breed	Microchip
28471	Top Meadow Victoria	826043000028471		Female	02784	00607	Alive	Registered	21 May 2001	Bright chesnut		
28679	Holbeache Lexy	826043000028679		Female	02784	00128	Alive	Registered	08 May 2012	Dark Liver Chesnut	Suffolk	941000014172347

If it is a big list, sort by clicking on the column headings, or type part of the name of the female you are interested in, into the filter box top right.

Select one female, the record will go pale orange



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Click on **Next** – bottom right

Our thanks to Dr Andy Dell for his significant assistance with this project

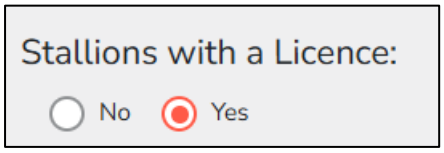
That takes you to a screen to filter the possible males.

The first option is **what colour of recommendation** do you want

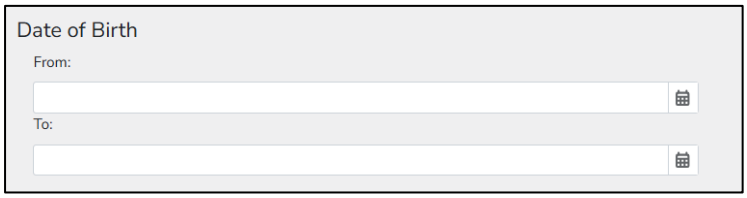
- **Green** – Recommended matings
- **Yellow** – Best of the Rest
- **Orange** - Not Recommended
- **Red** – Definitely Avoid

Or tick them all for a full list

The next question for equines is stallions with a licence, or colts which have not yet been licenced



Then for the breeds with large populations, you might want to filter on the age of the male



otherwise you can leave this blank

Finally you might want to filter only males which have been flagged as available to Hire, that is to say are at standing at stud, or available as AI

You might want to leave that blank for the first search

Click on **Next**

A screen will be displayed with :

The details of the selected female (top left) eg:

My Female

Animal Name:	**Holbeache Lexy**	IBC:	**0.0986**
Date of Birth:	**08/05/2012**	Mean Kinship:	**0.1287**
Registration Number:	**28679**	Total Offspring:	**Males: 2 (2) Female: 1 (1)**

With her name, date of birth and registration number in the first column

- and her Inbreeding coefficient
- her mean kinship to all the potential breeding males in the population. For equines that is to say licenced stallions and colts under 10 years of age.
- Plus the summary of the foals she has produced, and the number still alive in brackets.

Then the details of the Sparks calculation top right for comparison

Sparks Breed Calculations

Date Calculated:	**24/01/2025**	Mean IBC:	**0.1058**
Number of Males:	**109**	Mean Kinship for Males:	**0.1256**
Number of Females:	**279**	Mean Kinship for Females:	**0.1224**

On the left

- The date the calculation was run
- the number of males
- and the number of females
- ie the included in the calculations as the 'potential breeding population'

On the right

- the mean inbreeding coefficient for the whole of that population
- the mean kinship of all the males, to all the females
- and the corresponding mean of all the females, to all the males.

Then beneath that is a list of all the males you selected on the previous screen

Flag	Pair Kinship	Animal Name		Male Offspring	Female Offspring	Registration Number	UELN	DoB	Colour	Owner
	0.0846	Shotleyfield Dazzling Duke	AI	15	8	9096	826043000009096	13/04/2012	Whole-Coloured Dark Chesnut	00969
	0.0875	Grane Valley Henry	AI	0	1	9169	826043000009169	01/05/2016	Bright Chestnut	02918
	0.0875	Hercules of Halstead		0	0	9266	826043000009266	21/03/2020	Lemon Chesnut	02772
	0.0889	Dawley Duke of Foy		0	0	9119	826043000009119	12/05/2013	Whole-Coloured Bright Chesnut	01788
	0.0924	Grane Valley Elton		1	4	9236	826043000009236	19/06/2020	Chesnut	00128

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The first column are the Sparks colour recommendation

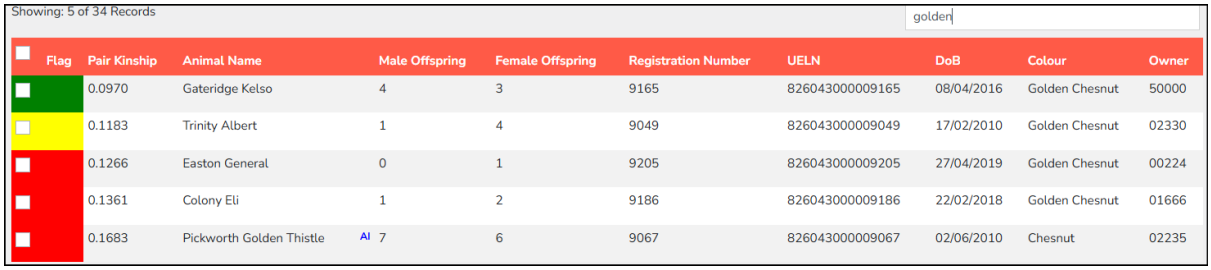
- **Green** – Recommended matings
- **Yellow** – Best of the Rest
- **Orange** - Not Recommended
- **Red** – Definitely Avoid

The Grid also includes:

- The kinship of the pairing for this male and your selected female
- The details of the male itself
- The number of offspring of that male
- Its date of birth and body colour

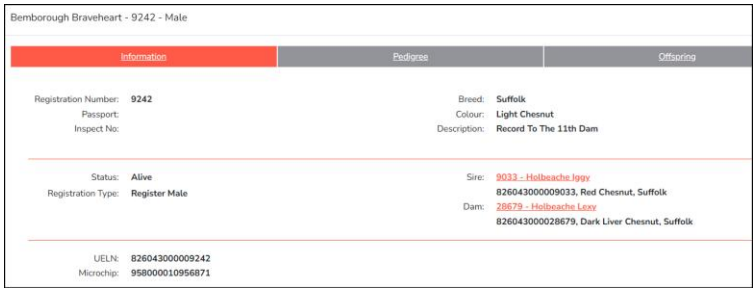
Click on a column heading to resort into any order, click again to resort into reverse order, or a third time to remove the sort.

Type something into the filter box at the top to filter the list, for example a body colour.



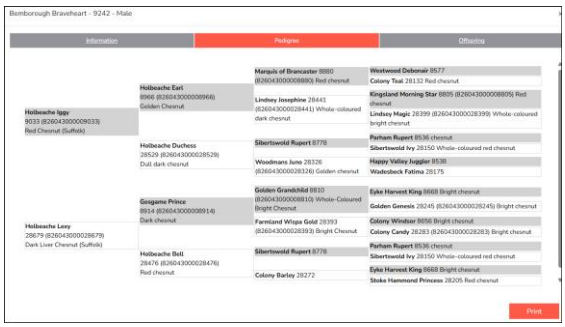
Flag	Pair Kinship	Animal Name	Male Offspring	Female Offspring	Registration Number	UELN	DoB	Colour	Owner
	0.0970	Gateridge Kelso	4	3	9165	826043000009165	08/04/2016	Golden Chesnut	50000
	0.1183	Trinity Albert	1	4	9049	826043000009049	17/02/2010	Golden Chesnut	02330
	0.1266	Easton General	0	1	9205	826043000009205	27/04/2019	Golden Chesnut	00224
	0.1361	Colony Eli	1	2	9186	826043000009186	22/02/2018	Golden Chesnut	01666
	0.1683	Pickworth Golden Thistle AI	7	6	9067	826043000009067	02/06/2010	Chesnut	02235

Double click on any male in the list to go to its record

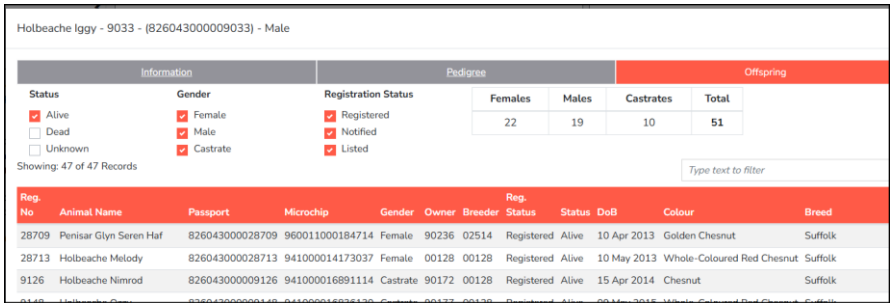


If the owner has given permission, their contact details will be displayed.

Click on the **pedigree** tab on the male record to see its four generation pedigree



Click on **offspring** to see a list of offspring.



If the breed has given permission for the Grassroots mobile app to be used, and the male owner has uploaded **images from the mobile app**, those images can also be seen here.

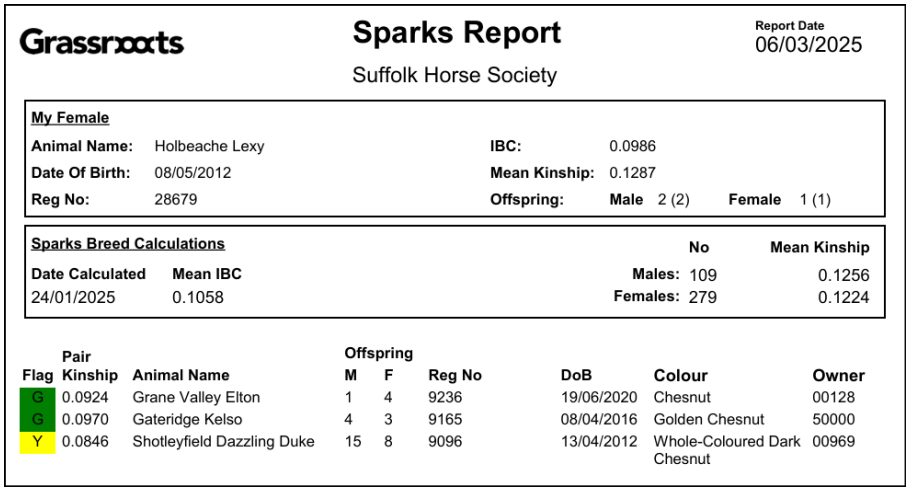
Click on any animal in a pedigree or offspring list to go to that animal's record.

Click on the x top right to go back to the sparks screen

Create a Report

Use the tick boxes on the left of the grid to select those males you think you might be interested in, or tick the top left of the grid to select them all.

Click on **Report** bottom right to create a mare sheet for this mare and this group of stallions.



Grassroots

Sparks Report

Suffolk Horse Society

Report Date 06/03/2025

My Female

Animal Name: Holbeache Lexy
Date Of Birth: 08/05/2012
Reg No: 28679
IBC: 0.0986
Mean Kinship: 0.1287
Offspring: **Male** 2 (2) **Female** 1 (1)

Sparks Breed Calculations

Date Calculated	Mean IBC		No	Mean Kinship
24/01/2025	0.1058	**Males:**	109	0.1256
		Females:	279	0.1224

Flag	Pair Kinship	Animal Name	Offspring M	Offspring F	Reg No	DoB	Colour	Owner
G	0.0924	Grane Valley Elton	1	4	9236	19/06/2020	Chesnut	00128
G	0.0970	Gateridge Kelso	4	3	9165	08/04/2016	Golden Chesnut	50000
Y	0.0846	Shotleyfield Dazzling Duke	15	8	9096	13/04/2012	Whole-Coloured Dark Chesnut	00969

We do hope you find the Grassroots Sparks module a helpful tool to assist you in making breeding decisions.

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