

episode 86 show notes and advice

This week Sarah has invited a surprising guest to join her on the podcast. Just back from a trip to the dahlia trial fields in the Netherlands, looking for new and exciting dahlias, Sarah shares the process of breeding new dahlias right from the initial cross-pollination through to trialling the successful selection of plants back at Perch Hill. Joining Sarah on this trip, was her husband, writer Adam Nicholson who with his unique, fresh perspective on the whole experience, helps to recount the story of visiting the dahlia breeders and making the selections - one potentially very special one as it turns out. Sarah hosts this week's podcast from their kitchen at Perch Hill, joined by her guest Adam and their two dogs.

In this episode, discover:

- How to breed a new dahlia
- The story behind potential new dahlia 'Adam's Choice'
- How Sarah's already well-loved dahlias 'Lou Farman', 'Abigail' and 'Molly Raven' were first selected from trial fields and at what stage of the breeding process
- Two other beautiful new selections made by Sarah and Adam on this recent trip
- The Dahlia Pope

Links & references:

Order Sarah's book: <https://bit.ly/2TWHJcz>

Order Arthur's book: <https://bit.ly/3xOov7H>

Shop on the Sarah Raven Website: <http://bit.ly/3jvbaeu>

Get in touch: info@sarahraven.com

Follow Sarah: <https://bit.ly/3jDTvBp>

Follow Arthur: <https://bit.ly/3jxSKK5>

episode 86 advice sheet

How to breed a new dahlia

Step 1 – Cross-fertilisation and growing seeds from hybridisation (Years 1 and 2)

- Select a characteristic and a variety you particularly like

Sarah loves growing dahlias for pollinators, so tends to select from the single varieties, the collarettes (singles with a whorl of petals at the centre), or the new anemone flower group (looking like it contains a sea anemone in the middle of a single dahlia). These are all rich in nectar and pollen.

- Select a colour you like (to cross the former with)

Sarah likes the burnished, rich, crimson colours more than the pales

- Netting: the dahlia should be netted before and after artificial pollination (so a bee doesn't do it naturally)
- Pollination: take the pollen from one dahlia to put on the stigma of another dahlia you love, and hope that this fertilises it, then net it again.
- Collection of seed: Once the seedhead has dried, collect the seed
- Growing: grow out all the seeds from that particular hybridisation (the following spring)
- Outcome: not one single plant you grow from those seeds will be the same, despite being cross-pollinated at the same time. You'll get a range of colour and characteristics.

Step 2 – The Selection (Year 3)

Dutch breeders

When Sarah and Adam arrived in Holland, Step 1 (the cross-pollination) had already taken place. Passionate about the plants, the breeders run fairly small enterprises, having devoted their lives to making beautiful dahlias. They arrived at a small shed in what felt like the middle of nowhere in Holland, and next to the shed, there is a small field, with lines and lines of incredibly varied dahlias. Sarah and Adam then walked the lines with the breeder and on finding a dahlia they liked the look of, the breeder carefully stuck a bamboo deep down in the bed of the dahlias, next to the plant's tuber, so that he could later identify it. On this trip, Sarah and Adam chose between six and eight dahlias, which the breeder will then carefully dig up, and the others that no one has selected are thrown away.

Step 3 - Initial growth from tuber (Year 3)

The breeder will take the tuber if it has formed tubers (the first hurdle) – if it hasn't, it's lost. Those that have formed tubers can then be brought into growth inside the following February / March. From a unique tuber you might get 20 cuttings if you're lucky, with two or three crops from one tuber.

Step 4 – Growing on from cuttings (flowering Year 4)

From the cuttings, the breeder then grows on those 20 individual plants, vegetatively propagated from cuttings, so identical to the parent you selected. These then get planted in a block in a field and observed by the breeder. It can be, you get as far as this point and the plants turn out not to be particularly strong or flowery, or not tuber growers. So even at this point (already in year 4), they could be binned.

Step 5 – Growing from the successfully grown dahlias (Years 4 – 5)

If you're lucky, your selection of plants do well and that autumn (year 4), they're lifted. You divide the tubers, and take cuttings from each of those new tubers. So of the 20 individual plants in Step 4, you might get 20 from each, making a potential 400 in year 5. It's at this point, you can judge if the plant is going to succeed or not.

Sarah aims to try and select some at Step 1 and some at Step 5 (year 5), when they've already proven themselves. Sarah then brings between one and five plants to Perch Hill, to trial them in home conditions – for example, their floweriness, that they don't get mildew, and that they're beautiful in the garden, as well as any particular characteristics, such as good vase life. However, it can be that some don't do so well under trial at Perch Hill. So of the six to eight plants Sarah and Adam selected this year, only one, possibly two if they're lucky, will make it through to the Sarah Raven catalogue.

Helpfully summarised by Adam:

Year 1 – Cross-pollination

Year 2 – Grow seeds from hybridisation

Year 3 – Growing on from tuber

Year 4 – Growing from cuttings

Year 5 – Growing from the successfully grown dahlias – up to 20 from 20 tubers, making a potential 400 plants - then brought to Perch Hill for trialling

Year 6 – Grown at Perch Hill for at least 18 months, to bulk up the numbers enough to be able to sell them

Year 7 – Finally selected and marketed in the Sarah Raven catalogue

Adam's Choice

Walking the dahlia lines with the breeder, Sarah was spying a few she really liked, while Adam, a little restless by this point, had taken himself off and spotted something up ahead – a big block of a very glamorous looking dahlia. To Sarah, it looked like a cross between a velvet Fortuny curtain and a Dutch brickyard, “so red, amber and umber, and all those beautiful shades”, and “a toffee apple” chimes in Adam. Sarah was so taken with this dahlia, they brought one plant back to Perch Hill and will have another four or five plants next spring. If this plant continues to do well through the next stages and trials, i.e. it flowers well, doesn't get mildew and the pollinators like it, it will be named 'Adam's Choice'. The breeder wasn't sure the plant had the beef in it, despite the size of the block (around 400 – 500 plants). Whether Adam does indeed know exactly what's “on-trend” in the world of dahlias, or just what his wife Sarah really loves, he may well have found the next greatest dahlia in the Sarah Raven collection.

Past selections

Two years ago a similar thing happened when Sarah went to the trial fields with her business partner Lou Farman. Lou walked the fields and the one she really fell for was just at the stage before 'Adam's Choice', so perhaps a couple of hundred plants (not quite 400 – 500 yet), meaning they could release this dahlia relatively quickly - a beautifully simple rich pink flower that fades elegantly, now known as 'Lou Farman'.

There's also 'Abigail' – a bright purple-pink, anemone-flowered dahlia named after the Head Horticultural buyer Abigail Dent. 'Abigail' was already at the same stage as 'Adam's Choice' when selected so similarly, it was released quite quickly.

'Molly Raven' was first seen in year 2, so at the 20-plant stage, and has turned out to be perhaps the best performer of all. It was an absolute triumph to have her on the front page of the RHS magazine, *The Garden*. “A real corker” according to Sarah, and unique in the sense that she's one of the only ones that isn't a single, so not visited by the butterflies or bees, though interestingly, does draw in the hoverflies. She has a wonderful vase life, is fantastic in a pot and by far the most vigorous variety out of all the ones ever selected.

A phenomenal eye for a dahlia

Accompanying Sarah and Adam on their recent visit to the trial fields, was Dutch plantswoman Dicky Schipper, with a phenomenal eye. After several hours of dahlia gazing on what would have been around 4,000 – 5,000 plants, Adam admits he was pretty much dahlia'ed out, and yet Dicky would still be picking out specific and notable characteristics of plants.

Previously Sarah has visited the trial fields with another Dutch friend Carien van Boxtel. Sarah, Dicky and Carien all have a similar eye but with a slightly different emphasis for example, Carien likes softer colours than Sarah, and Dicky is more forgiving of yellow than Sarah, especially the combination of pink and yellow together.

This year, Adam selected another beautiful dahlia, similar to 'Verrone's Obsidian', an elegant black single with a golden heart and extremely long petals shaped like an olive leaf. While Sarah chose a really fiery orange collarette - like the embers of a fire but with a paler whorl of collarette petals in the centre and unusually, not a yellow centre, but a particularly lovely crimson, burnished, bronze colour.

The Dahlia Pope

Otherwise known as René, the Dahlia Pope, with an extraordinary encyclopaedic knowledge of dahlias, has been a friend of Sarah's for over 20 years, with a gentle rivalry between them on dahlia expertise. One variety recently selected at Perch Hill for the Sarah Raven spring 2024 catalogue, named 'Dutch Delight', looks very similar to 'Penhill Dark Monarch'. Seeing the new variety, René was convinced it was 'Penhill Dark Monarch' or 'Penhill Watermelon', and that Sarah was wrong. It was only when Sarah sent a photograph of all three varieties, including the new dahlia 'Dutch Delight', René admitted defeat.

Two ways of propagating a dahlia

The great thing about breeding dahlias is that you spot a totally utterly, ravishingly unique beauty and relatively quickly release it to the market, because of the multiple ways to propagate dahlias - from tubers and cuttings. Plus if they're good cutting throwers, you can release it even more quickly and easily. Whereas with a tulip it takes twice as long as you've only got the bulb to propagate from. So from one unique cross-breeding, it can take as long as 10 – 15 years to bring a new tulip to the market. Breeding from dahlias, albeit 6 years

from start to finish, feels more doable, while breeding tulips really feels like the work of a lifetime.

Adam sums up the whole experience by likening the dahlia trials fields to “a beauty mine - spewing out diamonds and emeralds”.

“It’s just magical” he adds.

Example dahlia trial fields, Holland

<https://www.famflowerfarm.com/visit/dahlia-fields>

Keukenhof (tulips), Holland open from 23rd March to 14th May 2023

<https://keukenhof.nl/en/>