

All questions are answered by Dr Christopher Teh, soil biologist and senior lecturer at Universiti Putra Malaysia.



Dear Plant Doctor

Your gardening questions answered by Dr Teh, fill in the form at the website: questions.eatsshootsandroots.com.

Q WHAT is wrong with my coffee plant pictured above? – Haanim

A MOST likely the tree is being exposed to too much direct sunlight. Coffee trees prefer less direct sunlight and do well under shades. If possible move the tree so it is under the shade of larger trees or plant larger trees around the coffee tree.



Q I HAVE four seedless guava plants about three years old. They are growing well with abundant foliage. I fertilise the plants with chicken dung once every month. The plants produce many flowers but the flowers drop without forming any fruit. The tiny fruits that do get formed sometime also drop prematurely. Why do the flowers/small fruits drop? What can I do to get the plants to produce fruits? – Yoong T.C.

A FLOWER or fruit drops are commonly caused by over-watering or fertilising. Water just enough to keep the top soil moist (not soaking wet) and fertilise once only three or four times a year, not every month, as you are doing now. Stop fertilising completely until your tree recovers and produces fruits; then you can resume fertilising but ensure you do not overdo it.

Q I HAVE some pucuk manis (sweet leaf, *Sauropus androgynus*) plants in my garden. Lately, I noticed some leaves have random white patches on them or are whitish in the middle. Is there a problem with my plants? And are those leaves safe to eat? – Angie

A THE central white patch is normal for this plant, so you should not worry. They are expected! However, the random white patches probably indicate an infestation of insects called thrips. Just spray neem oil (1:100 oil to water) onto the leaves. Multiple sprayings might be required.

Q I AM growing soursop and noticed that, sometimes, yellow leaves appear. Why? What nutrients are lacking? Should fruiting happen within one and half to two years? There are plenty of flowers, but none have formed into fruits yet. What should I do? – Tan See Meng

A THE appearance of few yellow leaves is quite normal but if you notice many such leaves, they often indicate nutrient deficiency. Soursop has a high demand for nitrogen (N) and potassium (K); another component is phosphorus (P). So I suggest applying 1kg of NPK (in 10-10-10 parts) per tree, per year. Split the full application into four times per year so that you apply 250g NPK per tree, once every three months. Soursop also requires zinc (Zn) and boron (B) micronutrients. To make things simple, get a complete fertiliser that has NPK as well as these two micronutrients. You may need to do hand pollination to encourage more fruits to develop. Pollination is not difficult, and many videos on YouTube are available to show you how; search using the key word "sirsak" for Malay-language videos.

Q I HAVE been trying to grow chillies but always have issues with mealy bugs and aphids. I have tried spraying with water based aerosol, organic spray and soapy ones but just can't seem to control the infestations. What would you recommend? – Winston

A THE often recommended and fast way is to blast off the pests from the plant using a strong jet of water from your garden hose. You can also try spraying neem oil (about 30ml in 4 litres of water). Also, try planting chives, onions, or garlic next to your chilli plants, as the pests dislike these plants. And avoid over-fertilising your chilli plants, particularly with nitrogen.

Ready, set, grow!

By Eats, Shoots & Roots

GROWING up in Australia and Malaysia, Baida Hercus always knew she wanted land of her own to grow and nurture her family in nature.

Hercus, 40, is a mother of three and the managing director of design firm VR3D as well as a passionate environmentalist and president of the Free Tree Society of Kuala Lumpur (freetreesociety.org).

She works with husband Ricki Fritz, 41, at VR3D, where he manages the company's building information modelling and design services. The couple seems to share a green sensibility, as Fritz also designs green buildings, and they have an off-grid 2ha family farm in Janda Baik, Pahang, that they manage together.

A decade ago, the farm was just an overgrown patch of land being reclaimed by the jungle. Today, it is an orchard with over 1,000 trees, a vegetable garden, 100 chickens, two goats, and an upcycled cabin, where the family spends weekends.

Tell us a bit about your farm.

When we bought the land we couldn't connect it to electricity or develop it quickly, but we stuck to our guns and made sure that it was kept off-grid and as sustainable as possible. Our cabin is upcycled from an old kampung house as well material from renovations of offices.

What motivated you to do this?

We wanted to take control of our food source. We don't trust what we buy. If you don't know it, you'd have to grow it yourself. Secondly, to live gently and have that bond with nature.

And when we had animals we wanted to make sure that they're free-range, healthy and looked after.

What kind of edible plants do you have in your farm?

Ladies' fingers, tomatoes, eggplants, asparagus and herbs like parsley and sawtooth coriander.

We also have local fruit like buah rambai, mountain fig, custard apple, Vietnamese apple, kundang papaya, pineapple, starfruit, rambutan, durian, pomegranate, pulasan, bananas – five varieties of those – cherries, longan, nutmeg, lychee, mulberries, avocados, jambu, passionfruit.

And coffee, tea and spices like cinnamon, cengkih, allspice, pepper.

What made you want to have livestock – chickens in particular?

Chickens are quite easy to manage and largely look after themselves. You let them out in the morning, and they put themselves to bed at night. Eggs are also a superfood, and you can get it yourself.

Also, being able to slaughter a chicken, put it into your cooking pot knowing that it hasn't got any antibiotics in it – the chicken actually tastes clean.

How did you set up the space for the chickens?

I made a seven star chicken coop! I made sure that it was hygienic with concrete floors that I could wash and keep clean from diseases. Also, I made sure snakes wouldn't be able to break in, insects wouldn't be able to come



Hercus and Fritz on their farm. They built the cabin behind them with material from an old kampung house their work. — Photos: Eats, Shoots & Roots

Living gently with c

Antibiotics in chicken feed is becoming a huge concern now as the World Health Organisation has weighed in on the issue and is trying to get it back. This family isn't waiting, they're already raising their own



Seven-year-old Phoenix is the first and oldest rooster in the flock.



Leghorn chickens are good layers.



Eggs from drug-free and free-range treated hens = peace of mind

in. It also has an earth wall built into the side of the hill to keep it cool.

Starting with 12 chickens, we now have 100 in seven coops. After the first coop, we wanted some "meat" chickens, so we built temporary structures made of split bamboo harvested from our farm.

What have you learnt so far?
Not to have white chickens in a farm setting because they kind of glow!

Eagles can see them, so the white ones got picked off quite quickly.

Also, we learnt not to free-range our chickens for two months every year, between mid-October to mid-November, and March, during migratory season, when you can get 20 raptors at a time in the sky instead of the usual one or two.

And we bought an incubator to incubate some eggs to replenish the chickens.

What types of chickens would you recommend?

Kampung chickens are layers, and the meat is suitable for rendang and soups.

The laying breeds, black-skinned, are a hardy local breed that lay large, speckled eggs. And leghorns lay plentifully.

What's the difference between your chickens and chickens in the supermarket?

Not a lot. Except that mine are all healthy, free-range, and have personalities!

We give names to the layers, or we give a collective name for different coops. The black-skinned chickens are the "Witches of Eastwick".

We'd name the roosters, so if it's a coop, we'd go by the rooster's name, and he's probably got around five to 12 "wives" in the coop.

Most commercially-raised chickens are fed chicken meal that has antibiotics or is very high in protein.

I grow my own meal worms, and they get their protein from that, which is much healthier.

What happens to them in the long run?

Laying chickens don't get eaten, even after they've finished laying.

They have a shelf-life for 12 weeks, but I don't eat them after, they become pets.

They've served their purpose and they deserve to retire rather than be eaten.

Any tips for chicken rearing?

Keep up the protein in their diet if you want consistency and stronger chickens. After eating eggs, wash the eggshells, but crush them, and mix their corn to make sure they still have enough calcium producing more eggs. Hang them from the ceiling rather than on the ground so the rats can't access the food. And train chickens from young to eat scraps!

Any advice for people who would want to have chickens?

For a family of four, you need about five hens to get a decent supply of eggs. Build a nice coop and make sure that they get sunlight and space for two to three days. And don't get a rooster if you are in an urban area!

How self-sufficient are you from the farm?



as well as scrap from office renovations from



Simple laying boxes for the chickens, with sawdust and dried leaves as padding. Bamboo flooring keeps the coop light and breezy. It is also easier to clean as the dung falls through to the bottom of the coop.



A cheap and sustainable coop made from bamboo harvested from the land.

chickens

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What advice do you have for
someone who wants to be self
sustainable?

You can grow so much in a small
city garden – just try to grow as
much as you can and focus on
what you want to eat. If you want-
ed to be more self-sustainable,
though, you'd need to buy an acre
of land, secure it, and visit it regu-
larly if you don't have farmhands.
So it's a commitment.

What are your plans for the
future?

We've started growing our own
corn, and soybeans (for chicken
feed). The other thing we want to
do is grow more moringa, and
chop and mix it up with the food.

Eats, Shoots & Roots is a social enter-
prise that champions urban edible gar-
dening. For more information, go to
eatsshootsandroots.com or facebook.
com/eatsshootsandroots or e-mail
hello@eatsshootsandroots.com.



The farm's cooler environs allow Hercus and Fritz to grow things such as garlic chives (left) and asparagus that are usually not easy to produce in a tropical climate.



Green events

TIFFIN FOOD COURT: A CELEBRATION OF FOOD & DRINK

Eats, Shoots & Roots (ESR) will have a mini herb garden set up at the Tiffin Food Court event, from which visitors can pick fresh herbs and micro greens, like cilantro and Thai basil, to garnish their food with.

You can even ask for growing tips from us!

The Tiffin brand organises food-related events and experiences throughout the year; Tiffin Food Court is about re-inventing the Malaysian food court experience.

Taking over an almost 3,000sq m warehouse, Tiffin Food Court is a three-weekend long thematic fiesta, held in collaboration with more than 30 vendors and partners to create a multi-layered, food court experience serving food from every continent. This includes local hawker favourites and casual interpretations of haute cuisine, creative cocktails, and more.

Dates: Every Friday to Sunday beginning on Dec 8 and ending on Dec 24

Time: 5pm till late

Location: Lot No.1, Jalan SS8/6,

Sungai Way Free Trade Industrial Zone, Petaling Jaya
Entry: Free
For more information: Go to the website tiffin.my

GROW YOUR OWN MINI HERB GARDEN @ ILHAM GALLERY

THIS workshop is for anyone who wants to grow herbs on their balcony (or in any other small space). Before you start planting, first you need to understand the basics of healthy soil and how to create a happy space for herbs to grow in a container.

The workshop will cover choosing the right container, preparing your own potting mix, planting seeds/seedlings, and learning how to keep your herbs happy!

Date: Saturday, Dec 9

Time: 5pm-6.30pm (the 3pm-4.30pm session is full)

Location: Ilham Gallery, Menara Ilham, No. 8, Persiaran KLCC, KL

Price (inclusive of booklet and planter kit worth RM50): RM105 (RM85 if you mention *Star2*)

To register (required, as places are limited): Go to the website workshops.eatsshootsandroots.com; for inquiries, e-mail clarice@eatsshootsandroots.com

Not all seeds are created equal. Different plants produce different types of seeds:

Orthodox seeds
These are seeds that can be stored by drying. Most vegetable seeds fall into this category, meaning you can dry and save your own open-pollinated seeds for future planting. Examples include: amaranth, kangkung, brinjal.

Hybrid seeds
These are commercially bred to have desired traits and are crossed-bred through human intervention. The first generation of a hybridised plant will grow better and produce higher yields than the parent varieties. However, any seeds produced by hybrid plants may be genetically unstable and cannot be saved for later use. To identify hybrid seeds, look for "H1" or "F1" (meaning first generation) on seed packets.

Unorthodox seeds
These are seeds that cannot withstand drying or freezing, which means they have to be planted

soon after being picked. Often these are seeds from tropical trees such as avocado, mango, and coconut.

What kind of seeds can I save?

Fruiting vegetables
Such as brinjal, chilli, ladies' fingers, corn, cucumber.

Flowering herbs
Such as ulam raja, basil, cilantro.

Flowering vegetables
Such as amaranth, pak choy, kailan.



Tip: Only choose the best plants to mature, flower, and seed, to make sure you get the best seeds. Plants will yellow, dry out, and die in the process of allowing them mature to be able to get the seeds – but that's a natural process of seeding.

METHOD:

For fruiting vegetables

1. Tag the tastiest and healthiest fruits (eg: brinjal, chilli, ladies' fingers, corn, cucumber) on your plant.
2. Leave the tagged fruits to reach full size on the plant, and then leave them on the plant for another three weeks to mature. Then snip off the fruit from the plant.
3. Open and remove seeds gently from the fruit. Wash the seeds in a strainer, and then leave them to dry on a pan/plate/butter paper.
4. Store your seeds in a cool, dry, and air-tight environment, either in a vacuum sealed jar, or in a paper envelope. Keeping the jar/envelope in the fridge will keep the seeds fresh longer.

For flowering herbs/vegetables

1. Tag the biggest and healthiest stalks that have flowered (eg of flowering herbs: Thai basil and cilantro; eg of flowering vegetables: amaranth, pak choy, kailan, and long beans).
2. Snip off the flowers when they are brown and dry, and place into a paper bag.
3. Close the paper bag and shake it, to shake out the seeds that are in the dried flowers. Open the bag and separate the seeds from the dry matter.
4. Store your seeds in a cool, dry, and air-tight environment, either in a vacuum sealed jar, or in a paper envelope. Keeping the jar/envelope in the fridge will keep the seeds fresh longer.

Tip: Keep planting to get more free seeds – the best way to get more seeds is to plant them again, so share any extras with your friends. Depending on the seeds and how you store them, they can be viably stored for two months to five years.