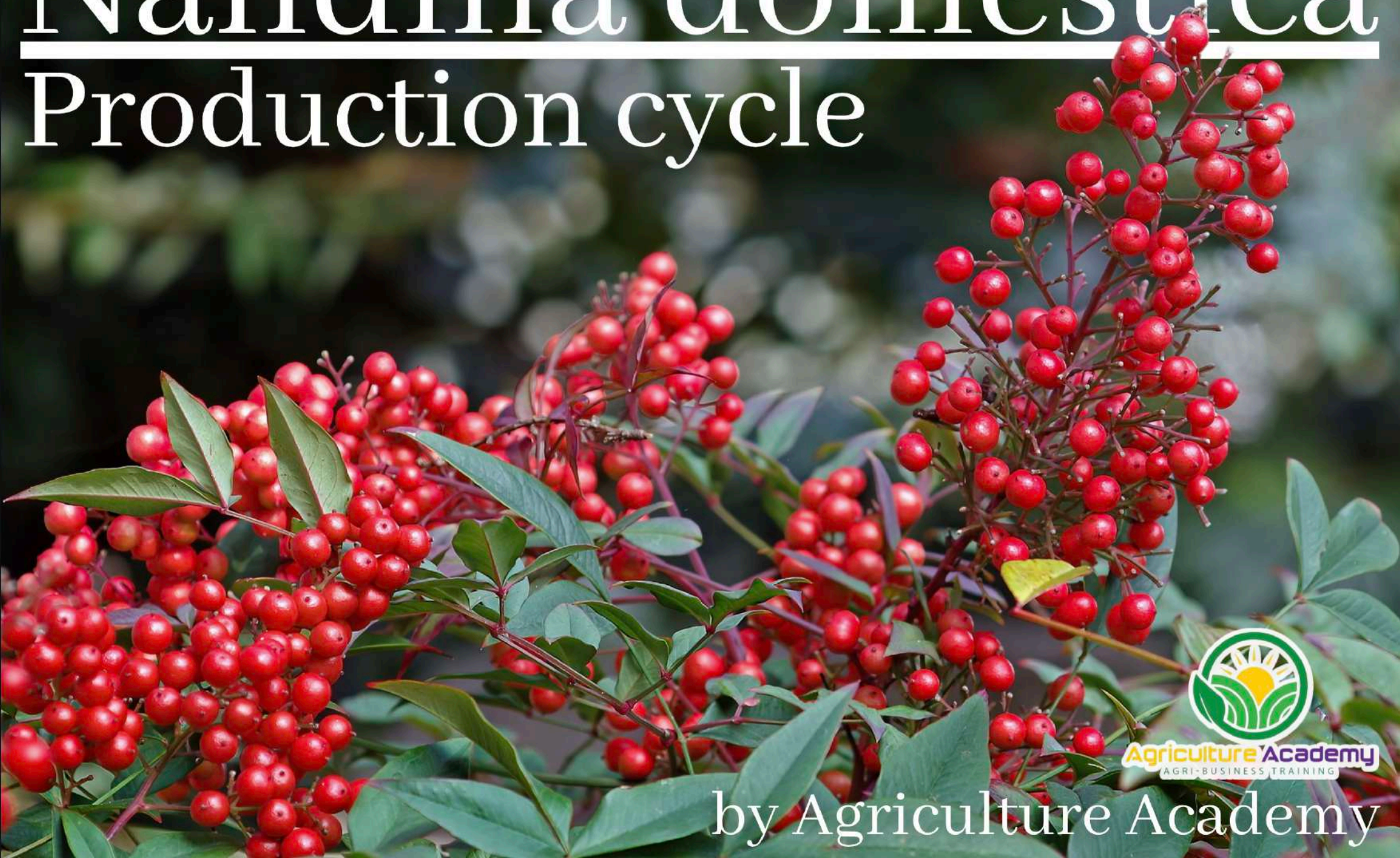


Nandina domestica Production cycle



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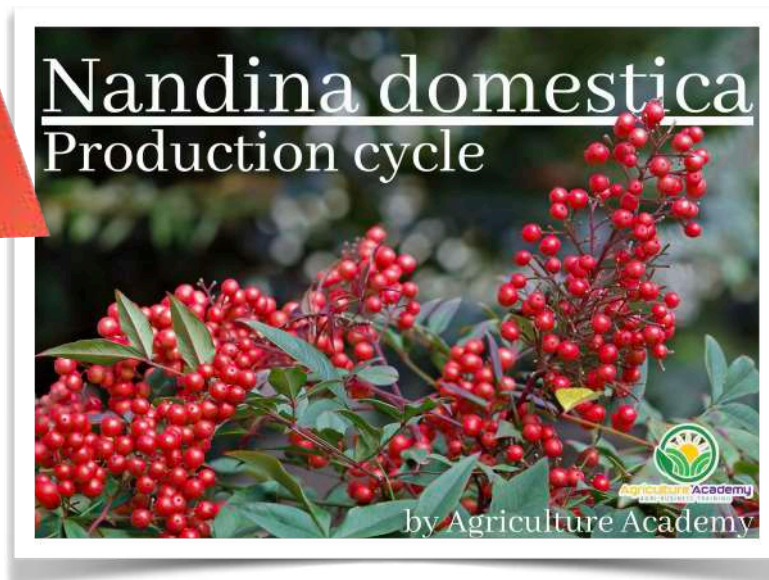


Thank you for downloading this guide!

If you are a nursery owner, you need to know how to grow *Nandina domestica*! This plant is so easy to grow, and they are in great demand by landscapers and retail buyers. So, if you aren't selling *Nandina*, you need to start now. And in this guide, we are going to show you exactly how to do it.

At the end of this eBook we are going to share our top 5 expert tips for growing *Nandina*.

Let's get started with the steps to sow your



The background of the slide features two clusters of Nandina domestica berries. The berries are small, round, and have a color gradient from bright red to yellow-orange, indicating they are ripe. They are attached to thin, woody stems. The entire scene is set against a dark, textured background that looks like a metal surface with fine scratches.

How to Sow Your Seed

There are two ways growers can get their hands on *Nandina* seed: 1) Through reputable seed retailers or 2) By harvesting their own seed.

If you find in yourself in need of a seed supplier, quick internet searches should put you on the right track. If it's your first time buying from a site read the company reviews to make sure they are worth your time and money.

If you are harvesting your own seed, you can do so when the berries start turning red. In our South African climate, this happens at the beginning of Autumn. However, these might happen only at the end of winter in other regions. We will discuss this further in our Top Tips for Growing *Nandina domestica* from seed toward the end of the video. Red berries like these have reached their first maturity stage and we can start the planting process.

Take your berries and let them soak in water for 24 hours (1). This helps to soften the seed coat. Encased in the seed coat are the true seeds. Some growers suggest removing this seed coat before sowing your seed, but we have been able to achieve a good germination percentage without removing the coat. This saves us a lot of time, especially when we are knees deep in sowing thousands and thousands of seed.

After your seed have soaked, let them air dry for a few minutes before you sow them into flats. We fill these flats with a good quality seed germination and cutting mix made up of well composted bark, coir, perlite and vermiculite (2). Gently flatten the surface with your hands (3).



1



To sow the seed evenly and prevent overcrowding, first position your seed in the trays (1). You can do this by gently pushing on the seed. We sow our seed approximately 1-2cm away from one another.

2



Once you have spread your seed, start pushing them deeper into the germination mix (2). Make sure they are about 3-5 mm deep. Once they are in their holes, cover them back up with the mix mounded around them (3).

3



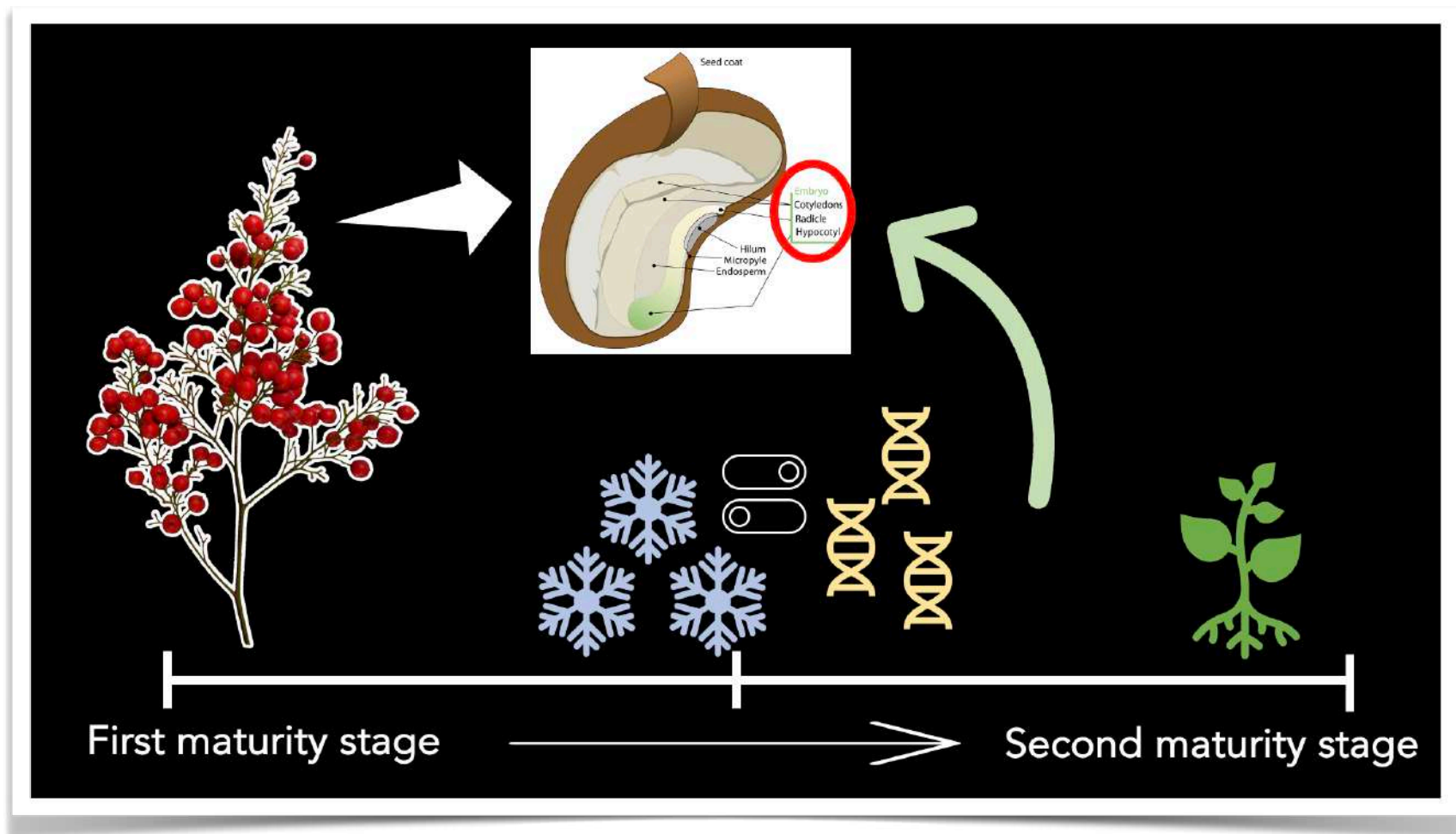
4



These seed can now be left outside for around 3-6 months. The first signs of germination are noticed at the beginning of spring (4). We keep them under shade nets in a sheltered spot in the nursery. They receive daily irrigation from sprinklers.

The Importance of Cold Temperature

These seed must be kept outside during winter for one important reason: cold temperature. *Nandina* seed are quite remarkable in that they are dependent on cold temperatures if they are to germinate. As we mentioned earlier, we sow our *Nandina* seed when they are starting to turn red – this is their first maturity stage. However, the embryos inside the seed have not yet fully developed. Cold temperature triggers a second maturation cycle by activating temperature-sensitive enzymes. These enzymes then allow the embryo to become fully mature and ready to develop into seedlings.



Transplanting to 2l and 4l pots



Young nandina seedlings are transferred from their flats into small 2 litre pots like these. They are planted in a high quality mix made up primarily of composted bark. In this nursery the *Nandina* are commonly not sold on pots of this size as the return on income is not worth the investment. Therefore, they are left to settle in these pots and put on some more growth.

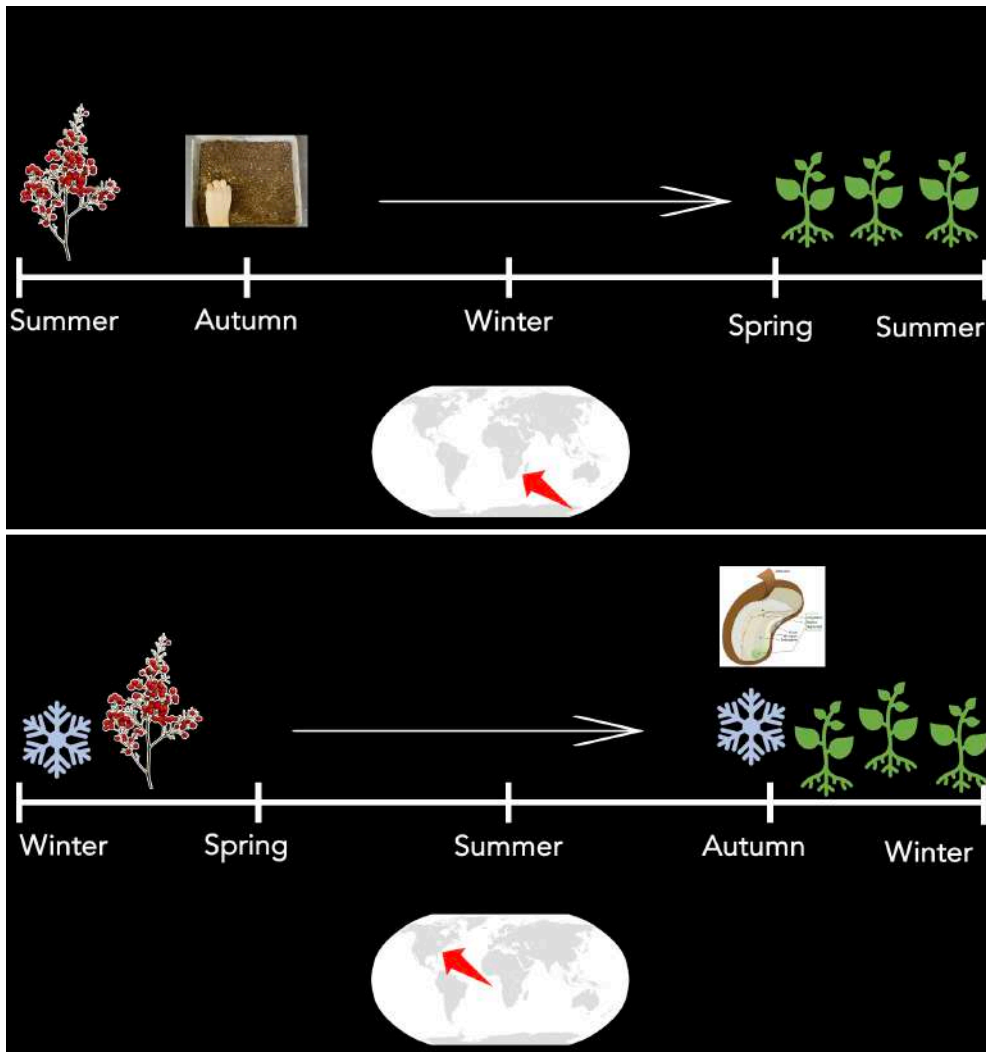
After they have acclimatised, they are transferred to larger 4l pots. At this point the grower can start selling his *Nandina*. In pots of this size, the client base will usually consist of other nurseries who are looking to resell the plants, or landscapers.

Transplanting to 10l pots

A grower can add even more value to his Nandina by letting the plants in the 4l pots grow up a bit and then transplant them into 10l pots. These pots can sell for up to 10 times the value of their smaller counterpart and is an easy way for a grower to maximise his income. However, they must have the time and space available to do so.



Top 5 Tips for Growing *Nandina*



Tip 1: Know how *Nandina* grows in your area

As we mentioned, our climate means we can harvest *Nandina* seed towards the end of summer, sow them in Autumn, and have seedlings by the next summer (1). However, in regions like North America the growing cycle is quite different (2). Here, the young seed require two cold periods if the seed are to germinate properly. This means the seed develop to the first maturation stage during winter. However, they require a second cold period to trigger further development of the embryo, which ultimately becomes the new seedling. This happens during the next fall. This generally means the seed only start germinating towards the beginning of winter in the second growing season.

Tip 2: Keep your seed in the fridge

Luckily there is a simple method us growers can use to mimic the cold temperatures – a fridge. Before you sow your seed, keep them in the fridge at around 4°C for at

least 6 weeks. This cold temperature will trigger the enzymes and let the embryo develop properly. However, be sure to keep an eye out for fungal growth during those 6 weeks.

If you have cool enough winters in your nursery, you can just as easily sow your seed and leave them outside as we do here in our South African setting. As you can see, even though our winters are comparatively mild, we still get cool enough to let the embryos develop properly.

Tip 3: Treat your seed with bleach

Fungal growth can be a major problem. To help prevent this, soak your seed in a 15% bleach solution after the 24 hour soaking process. Don't let your seed sit for days in this mixture as the anaerobic conditions can kill the seed. We have had success with leaving the seed in a clean fish tank with a pump on to keep enough oxygen in the water.

Tip 4: Protect young seedlings

When fully grown, *Nandina* can tolerate freezing temperatures up to below -5°C, but you should protect your young seedlings from frosty temperatures during their first couple of years of growth. As young seedlings, this might not be a problem as they start their first growing season in the spring. However, in their 2 and even 4 l pots we make sure to cover them with frost cloth at night during the winter.

Tip 5: Have well-planned production and financial cycles

To bridge the gap between sowing the seed and selling the plants 3-4 years later when they are this size, growers can consider selling a range of plant sizes. This is especially important for growers who have just started growing *Nandina*, and for those who might not be receiving an income from a range of other plants in the meantime. Ultimately, the importance of a well-planned production and financial cycle is crucial for slow growing perennials like *Nandina*.