Plug Problems: Spin-Dried Plants

Dr. Will Healy

 Surprise! There is a pile of plugs in the bottom of the box that looks like it went through a spin cycle in your washing machine. Why does this happen? Can’t the shipping company keep the box right side up?

The key to keeping young plants in the tray during shipping is to make sure the plants are locked into the tray. If there is “wiggle room” or “head space” around the plug, the plants will become airborne in the box. Once one plug starts wandering around the box, all the plants around it will follow suit.

Wiggle room occurs when trays are gapped or reworked just prior to shipping and the moved plants aren’t settled back into the tray. Watering the plants in after gapping will compact the soil back around the roots and prevent the plant from going “bareroot” in the box. Bareroot plants in the bottom of the box are an ugly thing since getting them re-established seldom works well.

Managing “head space” is critical to keeping the plants in the tray. The boxing system (a) has a two-point lockdown to prevent movement of the tray. The sides of the insert or sleeve have “triangle wings” that compress the tray and plants, preventing them from moving left or right. The lid on top pushes the plants down and holds them in place so even if they wiggle, they stay in the tray. Using a wrapper system to hold the plants in place produces the same end goal—they are bound into the tray.

Some companies use a tube rather than a triangle wedge to hold the tray. The boxing system above (b) works well for large, bulky plants where the foliage compresses against the sides and top of the sleeve, which binds the plants in place.
Problem arise when using a tube system with too much air space around the tray (c). When this unbound tray goes onto a high-speed sorting belt or gorilla delivery crews get involved, the plants seldom stay in the tray.

Locked and loaded tight is the key to keeping the plants in their tray. When plants end up out of the tray, it’s because they were allowed to move around like a cat on a hot tin roof.

So how do you handle that pile of plants in the bottom of the box? Open the box slowly to determine why plants left the tray so you can provide a detailed description to your supplier.

- If the plants were packed correctly, then a claim to the shipping company may be warranted. Check with your supplier to see if they are using a certified box. If the packing is faulty, identify how the packaging failed.
- Carefully remove the sleeve to prevent variety mix-ups later in production.
- If the rootball is intact, gently put the plants back into the tray. Excessive force can damage the roots, causing root rot damage later in production.
- If the rootball is not intact or the plants are bareroot, place trays in the cool shade to keep the dislodged plants from drying out. Transplant these plants ASAP since putting them back into the tray can cause more damage to the root system.
- Monitor the plants during the first week and apply soil fungicides if roots don’t resume vigorous growth.

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