

TECH TIP: ALYSSUM PLUGS - FOLIAGE YELLOWING

Question: We are seeing a yellowish hue on our Alyssum foliage, as well as dwarf plants. We had an initial problem with *Phyllotreta Cruciferae* (crucifer flea beetle) as the bite marks show, but don't feel it is related. We do spray twice a week for downy mildew.

Answer: The yellowing demonstrates overwatering and potentially a *Pythium* infection. The green slime (algae) on the soil (greater in the cells with yellow plants than green plants) supports this observation of overwatering. See orange circle in the photo. I also see fungus gnat or shorefly adults on the leaves (blue circle), another indication of too-wet growing conditions.

The key is to make sure that once the germination is completed (cotyledons unfolded) where a level 3-4 moisture is critical, that you go to a level 2-4 to make sure the soil dries between irrigations. The level 4 is when a drip comes out of the bottom of the cell while level 2 is dry on top with mid brown (not tan) on the bottom. Reference the substrate moisture table.

A lot of plug operations use a tray weight method, where they identified the weight in grams for each moisture level. You might want to start determining your specific tray weights. We found out that this helps many growers identify correct moisture levels, as the 1-5 scale can be subjective.

SUBSTRATE
MOISTURE LEVEL
TABLE

	Level 1 Dry	Level 2 Medium Dry	Level 3 Medium	Level 4 Medium Wet	Level 5 Saturated
Substrate colour	Very light brown or gray	Light brown	Brown to dark brown	Dark brown	Brown-black, glistening with water
Substrate feel when squeezed in hand	No moisture is detected in substrate	Substrate squeaks when squeezed	A small drop of water can be squeezed from the substrate	Water can be easily squeezed from the substrate	Water runs freely out of the substrate
Substrate structure	Substrate is dusty and freely scatters when blown	Substrate will barely stick together under pressure	Substrate will clump together but cracks apart under its own weight	Substrate easily clumps together and stays as one clump	Substrate has a semi-liquid consistency

