

VPD by Growth Stage

Vapor Pressure Deficit is the single best metric for tuning your grow environment. Hit the right window for each stage and your plants transpire freely, eat more, and grow faster.

STAGE	TARGET VPD	TEMP	RH	NOTES
Clone / Seedling	0.4 – 0.8 kPa	75–80°F	70–80%	Roots are still developing. Keep humidity high so leaves don't pull water faster than roots can replace it.
Early Veg	0.8 – 1.1 kPa	75–82°F	60–70%	Plants are establishing structure. Slightly drier air encourages stronger root growth.
Late Veg	1.0 – 1.3 kPa	75–82°F	55–65%	Dial humidity down gradually. Plants should be transpiring strongly.
Early Flower	1.0 – 1.4 kPa	73–80°F	50–60%	Stretch phase. Plants want similar VPD to late veg, just slightly cooler.
Mid Flower	1.2 – 1.5 kPa	72–78°F	45–55%	Buds are bulking. Lower RH helps prevent mold; VPD stays moderate.
Late Flower / Ripen	1.4 – 1.6 kPa	68–75°F	40–50%	Push terpenes and color. Cooler nights, lower RH, but watch for stress at the high end.

Quick reminder

VPD is driven by leaf temperature, not just air temp. A canopy under heavy lights can run 2-4°F hotter than ambient. If you're chasing perfect VPD, measure leaf temp with an IR thermometer and adjust your humidity to compensate.