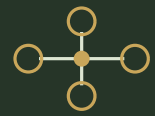


Weather + Light Go/No-Go Matrix

Practical thresholds for mapping quality and flight safety

04 / Weather



Condition	Go	Caution	No-go
Wind	0-10 mph; steady	10-15 mph; gusty; watch battery and blur	Over 15 mph, strong gusts, or drift you cannot control
Precipitation	Dry aircraft; no rain	Dew, wet leaves, muddy launch site	Rain, mist, snow, thunder, or wet electronics risk
Visibility	Clear VLOS; 3+ statute miles for Part 107	Haze, glare, light smoke	Fog, dust, smoke, or conditions that hide the drone
Clouds / shadows	Bright overcast is ideal	Sunny: fly near solar noon; lock exposure	Partly cloudy for multispectral; moving cloud shadows
Sun angle	Within 2 hrs of solar noon if sunny	Early/late only for inspection, not mapping	Long shadows across rows or target zones
Battery temp	Moderate temps; batteries warm/cool enough	Hot truck or cold morning - stabilize packs	Battery warnings, swelling, or rapid voltage drop
Crop surface	Canopy visible; objective matches stage	Wet leaves may alter reflectance	Wind-lodged canopy or dust plume masks pattern

BEST LIGHT RULE

For RGB scouting, consistent light matters more than perfect light. For multispectral work, avoid partly cloudy conditions because cloud shadows can look exactly like crop stress.

If conditions are marginal, fly a small test strip first and inspect image sharpness, exposure, and shadow patterns before committing batteries to the full field.