



LUCAS FORMULA - REVISITED...

General Notes on Lucas Formula

The **Lucas Formula** was created using tissue analysis from leaves of a plant. From this, the exact mineral levels can be derived that are necessary for optimum growth. These ratios allowed Lucas to determine what ratios of Grow Micro and Bloom were to be used from the Original GH formula. It is recommended that **Advanced Nutrients** 3 Part Grow Micro Bloom is substituted in the place of GH since the price is the same and the quality of the ingredients (Food and Pharmaceutical Grade) is superior along with better Chelating agents (EDDHA). The **Lucas Formula** essentially cut out the Grow from the 3 part series. In essence, along with coming up with the ideal formulation, he was also trying to make the mixing of this 3-part series easier & less expensive as well. Lucas argued that the only Macro/micro nutrient that the Grow Nutrient really had was Nitrogen; which in turn the Micro had in Spades.

We have talked with many grower's over the years along with testing this formula out ourselves and we have modified it slightly. We will show you both the original & our modified version below. If you ask us, there is no better way to run any 3-part set of nutrients.

Original Lucas Formula

G-M-B (Grow-Micro-Bloom)

0-5-10 - For Vegetative cycle (18 hours of daylight/6 hours of night)

0-8-16 - For Flowering cycle (12/12)

The numbers above indicate the number in milliliters (ml) of Grow, Micro, or Bloom formulas to be used per one gallon (US liquid) of water. Note that the Grow component is not used; the Micro component provides plenty of nitrogen for the vegetative cycle.

The Lucas formula is normally intended for use with RO or near 0 PPM water.

During the Course of the Week:

1. Top off the reservoir daily using pH-corrected water as required to maintain the full reservoir level. Change out the reservoir with a fresh mix after you've added back enough water to equal the reservoir's capacity.

Between vegetative and flowering cycles you should dump the reservoir, then flush (preferably with a flushing solution such as Clearex, or Final Phase) to remove salts, then change to the new feeding program. Always shake the nutrient bottles really well before using them. Always add the Micro (Brown) before adding the Bloom (Pink) Nutrient. Also, always mix the nutrients in the reservoir. Never mix the concentrates together!

For young plants just transplanted into the hydro setup, feed them a 50% strength nutrient mix to prevent overfeeding while they're young and delicate. Gradually bring up the mix to full strength as they grow over the next few weeks or so.

Modified Lucas Formula

First Off, we do not suggest using the mL Numbers above, and instead going off of a ppm meter based on how much nutrient the plants can take before getting any sign of nutrient burn. (Nutrient burn always starts at the leaf tips, by turning the tips brownish orange, then works its way into the margins of the leaves (same brownish yellow necrosis, and eventually will show signs of necrosis in the interior of the leaves. We prefer basing our concentrations off of a ppm / TDS reading because it is more accurate and allows for a further pushing of nutrient levels into a plant based on how much that individual strain can take. (There is a considerable difference between strains on how much nutrient they can take.)

Next, we prefer using the 3 part nutrient in the old style for All Vegetative Growth (3 parts Grow, 2 parts Micro, and 1 part Bloom). We also like to use the 3 part system (Now 3 parts Bloom, 2 parts Micro, 1 part Grow) for the first 3-4 weeks of Bloom. Only for the final 4-5 weeks of Bloom do we employ the 2 parts Bloom to the 1 part Micro - "**Lucas Method**".

We feel if you follow our ammended schedule you will see significant gains over both the orginal formulation and the Original Lucas Formula as well. . .Give it a whirl - Let us know!

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