



For Educational and Research Purposes.

Instructions for GA3 90%©

GA3 90% powders must be dissolved before they can be diluted and be used. Place the desired amount of powder in a small glass, such as a shot glass. Add 1/8 tsp of 70% or higher rubbing alcohol (Isopropyl) or ethyl alcohol. It works better if the alcohol is very hot.

The higher the percentage, the better it works. GA3 is generally applied in the form of foliar a spray or a soak for seeds..

STORAGE: Store GA3 in a cool dark place. GA3 has a shelf life of 2 years. When stored in the freezer, GA3 can last up to 3-4 years. However, it must be in an airtight container. The atmosphere of the freezer must not touch the GA3.

How to Apply Gibberellic Acid:

Gibberellic Acid is generally used as a foliar spray. GA3 can act like a root retardant. Do not pour at the base of plant. Do not use on tubers, bulbs, or rhizomes.

Spray only once a month or once every 6 weeks. It is not uncommon to need to spray your plants only one or two times per season.

Start out with 100ppm-250ppm(parts per million) of GA3 solution and experiment with that and make solution stronger or weaker as desired. Experimentation is needed because different plants respond differently.

FOR BEST RESULTS MIX WITH FULVIC ACID

Fulvic acids acts as a superior chelating which effectively passes through the cell walls of the plant to deliver the hormones and nutrients for superior results. Fulvic acid has a dilution ratio of 1:1200 to 1:1500.

Tips:

The only way to get the same results every time with most plants are if they are all clones. However, some plants require 50ppm-500ppm of GA3. So, just experiment and have fun. If you spray your plant and don't see any noticeable growth after 1-2 weeks, you can make a stronger batch and reapply. GA3 also wakes up dormant plants! Spray your plants early in the spring to get a longer growing season, and more flowers. Or spray them in the summer to extend the growing season. Dont spray too often or your plants *will* stop responding to the GA3.

SEEDS:

For many seeds, soak for 24hrs in a 50ppm-500ppm solution. However, many other species will require higher ppm's. Some will be destroyed by 1000ppm and not be affected by 500ppm. But, 750ppm will produce healthy seedlings. 250ppm has worked well for a wide variety of plants

The aim of your research is to determine which species benefit, and what treatment will produce healthy, normal seedlings and plants. Each type of seed should have a *control*- a test of untreated seed to compare against the GA3 treated test. Otherwise, you will have no way of knowing whether GA3 made a difference.

Remove from solution and rinse thoroughly. The addition of a heating pad under the seeds will greatly increase the germination rate. With the container sitting on a heating pad on its lowest setting, we were able to germinate many kinds of seeds literally over night, around 18-24hrs.

GA3 Mixing guide:

Fill each 1/32 teaspoon scoop to the rim, do not go above. Each level scoop should weigh .08g.

Select the PPM you prefer to use, for the results that you want. If this is your first time experimenting, you might want to start off with a low PPM and adjust it according to the results you get and want. You can go as low as 100ppm.

How Much Powder		How Much Water								
		50 ppm			75 ppm			100 ppm		
Scoops	Grams	Liter	US Ounce	US Gallon	Liter	US Ounce	US Gallon	Liter	US Ounce	US Gallon
1	0.08	1.44	48.69	0.38	0.96	32.46	0.25	0.72	24.35	0.19
2	0.16	2.88	97.38	0.76	1.92	64.92	0.51	1.44	48.69	0.38
3	0.24	4.32	146.08	1.14	2.88	97.38	0.76	2.16	73.04	0.57

4	0.32	5.76	194.77	1.52	3.84	129.85	1.01	2.88	97.38	0.76
5	0.4	7.2	243.46	1.9	4.8	162.31	1.27	3.6	121.73	0.95
6	0.48	8.64	292.15	2.28	5.76	194.77	1.52	4.32	146.08	1.14
7	0.56	10.08	340.84	2.66	6.72	227.23	1.78	5.04	170.42	1.33
8	0.64	11.52	389.54	3.04	7.68	259.69	2.03	5.76	194.77	1.52
9	0.72	12.96	438.23	3.42	8.64	292.15	2.28	6.48	219.11	1.71

How Much Powder		How Much Water								
		150 ppm			175 ppm			200 ppm		
Scoops	Grams	Liter	US Ounce	US Gallon	Liter	US Ounce	US Gallon	Liter	US Ounce	US Gallon
1	0.08	0.48	16.23	0.13	0.41	13.86	0.11	0.36	12.17	0.1
2	0.16	0.96	32.46	0.25	0.82	27.73	0.22	0.72	24.35	0.19
3	0.24	1.44	48.69	0.38	1.23	41.59	0.32	1.08	36.52	0.29
4	0.32	1.92	64.92	0.51	1.65	55.79	0.44	1.44	48.69	0.38
5	0.4	2.4	81.15	0.63	2.06	69.66	0.54	1.8	60.86	0.48
6	0.48	2.88	97.38	0.76	2.47	83.52	0.65	2.16	73.04	0.57
7	0.56	3.36	113.61	0.89	2.88	97.38	0.76	2.52	85.21	0.67
8	0.64	3.84	129.85	1.01	3.29	111.25	0.87	2.88	97.38	0.76
9	0.72	4.32	146.08	1.14	3.7	125.11	0.98	3.24	109.56	0.86

How Much Powder		How Much Water								
		225 ppm			275 ppm			300 ppm		
Scoops	Grams	Liter	US Ounce	US Gallon	Liter	US Ounce	US Gallon	Liter	US Ounce	US Gallon
1	0.08	0.32	10.82	0.08	0.26	8.79	0.07	0.24	8.12	0.06

2	0.16	0.64	21.64	0.17	0.52	17.58	0.14	0.48	16.23	0.13
3	0.24	0.96	32.46	0.25	0.79	26.71	0.21	0.72	24.35	0.19
4	0.32	1.28	43.28	0.34	1.05	35.5	0.28	0.96	32.46	0.25
5	0.4	1.6	54.1	0.42	1.31	44.3	0.35	1.2	40.58	0.32
6	0.48	1.92	64.92	0.51	1.57	53.09	0.41	1.44	48.69	0.38
7	0.56	2.24	75.74	0.59	1.83	61.88	0.48	1.68	56.81	0.44
8	0.64	2.56	86.56	0.68	2.09	70.67	0.55	1.92	64.92	0.51
9	0.72	2.88	97.38	0.76	2.36	79.8	0.62	2.16	73.04	0.57

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