

GREENS GROW-IN PROGRAMS

For Greens in the north and transition zones

Nutrient Monitoring Program

The following program should be used as a guide. Monitoring nutrient levels in leaf tissue and soils is critical for designing the most efficient nutrient program. BioPro recommends the use of a diagnostic service that provides soil, water, and NIRS (Near Infrared Reflectance Spectroscopy) tissue analysis. With diagnostic results, BioPro nutrient programs may be modified to correct imbalances and prevent future problems.

8-week Grow-in Program for Spring-Early Summer Conditions

Based on minimal 3 lb. Nitrogen per 1000 sq. ft. per 8 week grow-in

Week	Lb. Nutrient/1000 sq. ft./Week			Gallon Product/Acre/Week	
	Lb. N	Lb. P	Lb. K	7-21-0	14-4-10
1	0.48	0.51	0.25	8.00	10.00
2	0.52	0.15	0.37	0.00	15.00
3	0.52	0.15	0.37	0.00	15.00
4	0.52	0.15	0.37	0.00	15.00
5	0.24	0.25	0.12	4.00	5.00
6	0.24	0.07	0.17	0.00	7.00
7	0.24	0.07	0.17	0.00	7.00
8	0.24	0.07	0.17	0.00	7.00
Total	3.00	1.41	2.00	12.00	81.00
				480.00	3240.00
				1.75	11.78

Total Gallon/Acre/8 weeks
Total Gallon/40 Acres/8 weeks
#275 Gallon Tanks needed

*This program is for a spring grow-in. Nutrient rates are reduced by half during the second 4-week period due to summer stress. If growth is desired or if summer conditions are moderate, rates can be increased accordingly.

8-week Grow-in Program for Spring-Early Summer Conditions

Based on minimal 1.5 lb. Nitrogen per 1000 sq. ft. per 8 week grow-in

Week	Lb. Nutrient/1000 sq. ft./Week			Gallon Product/Acre/Week	
	Lb. N	Lb. P	Lb. K	7-21-0	14-4-10
1	0.24	0.26	0.13	4.00	5.00
2	0.26	0.07	0.19	0.00	7.50
3	0.26	0.07	0.19	0.00	7.50
4	0.26	0.07	0.19	0.00	7.50
5	0.12	0.25	0.06	2.00	2.50
6	0.12	0.07	0.08	0.00	3.50
7	0.12	0.07	0.08	0.00	3.50
8	0.12	0.07	0.08	0.00	3.50
Total	1.50	0.93	1.00	6.00	40.50
				240.00	1620.00
				1.00	6.00

Total Gallon/Acre/8 weeks
Total Gallon/40 Acres/8 weeks
#275 Gallon Tanks needed

*This program is for a spring grow-in. Nutrient rates are reduced by half during the second 4-week period due to summer stress. If growth is desired or if summer conditions are moderate, rates can be increased accordingly.

8-week Grow-in Program for Fall Conditions

Based on minimal 4 lb. Nitrogen per 1000 sq. ft. per 8 week grow-in

Week	Lb. Nutrient/1000 sq. ft./Week			Gallon Product/Acre/Week	
	Lb. N	Lb. P	Lb. K	7-21-0	14-4-10
1	0.46	0.46	0.25	7.00	10.00
2	0.52	0.15	0.37	0.00	15.00
3	0.52	0.15	0.37	0.00	15.00
4	0.52	0.15	0.37	0.00	15.00
5	0.46	0.46	0.25	7.00	10.00
6	0.52	0.15	0.37	0.00	15.00
7	0.52	0.15	0.37	0.00	15.00
8	0.52	0.15	0.37	0.00	15.00
Total	4.04	1.80	2.70	14.00	110.00
				560.00	4400.00
				2.04	16.00

Total Gallon/Acre/8 weeks
Total Gallon/40 Acres/8 weeks
#275 Gallon Tanks needed

*This is a fall grow-in program. Nutrient rates remain constant throughout the 8-week period to maximize growth.

8-week Grow-in Program for Fall Conditions

Based on minimal 2 lb. Nitrogen per 1000 sq. ft. per 8 week grow-in

Week	Lb. Nutrient/1000 sq. ft./Week			Gallon Product/Acre/Week	
	Lb. N	Lb. P	Lb. K	7-21-0	14-4-10
1	0.23	0.23	0.12	3.50	5.00
2	0.26	0.07	0.19	0.00	7.50
3	0.26	0.07	0.19	0.00	7.50
4	0.26	0.07	0.19	0.00	7.50
5	0.23	0.23	0.12	3.50	5.00
6	0.26	0.07	0.19	0.00	7.50
7	0.26	0.07	0.19	0.00	7.50
8	0.26	0.07	0.19	0.00	7.50
Total	2.02	0.90	1.36	7.00	55.00
				280.00	2200.00
				1.02	8.00

Total Gallon/Acre/8 weeks
Total Gallon/40 Acres/8 weeks
#275 Gallon Tanks needed

*This is a fall grow-in program. Nutrient rates remain constant throughout the 8-week period to maximize growth.

BioPro Products

Enviro P 7-21-0 (Liquid Nutrient Blend) is an exceptional source of phosphorus for turf.

A patented production process complexes organic acids from leonardite with phosphorus. This produces a very stable fertilizer that retains phosphorus in the root zone substantially longer than conventional fertilizers. Phosphorus is particularly important in the establishment and development of new seedlings. Phosphorus from other sources is commonly tied up in the soil. Enviro P (7-21-0) is most effective when used in pre-plant applications, and as the continuing phosphorus source during establishment. Enviro P (7-21-0) gives new turf a substantial head start creating a more vigorous playable surface in a shorter period of time.

Greens Plus 14-4-10 (Liquid NPK Nutrient Blend) is a balanced nutrient blend with nitrogen, phosphorous, and potassium in the same ratio as they are generally found in plant tissue. Nitrogen is supplied as a polymethylene urea blend to provide uniform turf growth and color. This product contains 8.85% controlled release nitrogen, and organic acids from leonardite, which may enhance nutrient uptake.