



CLESSENS

18-3-4 + Micronutrients, Humic Acid, and Seaweed
A Fertilizer Solution with Nitrogen, Phosphorus, Potassium,
Sulfur, and Micronutrients for Feeding Turf

18-3-4 fertilizer solution provides nitrogen, phosphorus and potassium for a wide variety of turf grasses. 18-3-4 was formulated for the spoon feeding of tees and greens where a N:P:K ratio of 6:1:1 is desired. 18-3-4 nitrogen is derived from urea and potassium nitrate. 18-3-4 phosphorus is derived technical grade phosphoric acid. Phosphoric acid provides an immediately available source of phosphorus to the plant as it is 100% orthophosphate and is well suited for foliar application. Potassium is derived from potassium nitrate, a high quality, soluble source of N and K ideally suited for foliar application. 18-3-4's micronutrients are derived from copper, manganese and zinc sulfates; complexed forms of the metals that are immediately available to the plant, especially as a foliar application

APPLICATION: Initiate applications in spring when first green-up appears and repeat as needed during the active growing season. Apply in 2-4 gallons of spray solution per 1000ft².

LAWN CARE PROGRAM:

COOL SEASON GRASSES: Rates may vary from 1/2 to 1 pound of nitrogen, phosphorus and potassium per 1000ft² in 4 to 5 applications at 8 to 12 week intervals for a total application rate not to exceed 3.5 to 4 pounds of N, P or K₂O per year.

WARM SEASON GRASSES: Rates may vary from .75 to 1 pound of nitrogen, phosphorus and potassium per 1000ft² in 5 to 6 applications at 8 to 12 week intervals for a total application rate not to exceed 6 to 8 pounds of N, P₂O₅, and K₂O per year. Rates and frequency of application may vary due to cultivar and accepted turf practices.

FERTIGATION: 18-3-4 may be injected during each irrigation at rates of 32 to 64 fluid ounces per 1000ft². Rates may vary in accordance with the irrigation schedule. Use the lower rate in more frequent watering. One gallon of 18-3-4 contains 1.9 pounds of N, .3 pounds of P₂O₅ and .4 pounds of K₂O.

GOLF COURSE PROGRAM:

FAIRWAYS: 18-3-4 may be used as the sole nutrient source or combined with additional nitrogen for application on fairways. It is recommended that the applications be split to coincide with the nutritional demands of the cultivars present in the fairways and the cultural program of the superintendent. (Rates may vary from 3 to 4 pounds of N and K₂O (1.6 to 2.1 gallons of 18-3-4 per 1000ft² on an annual basis.)

TEE AND GREEN: For spoon-feeding tees and greens, apply 1/4 pound of N (17 ounces of 18-3-4) in 2 to 4 gallons of total spray solution per 1000ft² every 7 to 10 days. Application may be made in conjunction with the turf protection chemical program. Irrigation is recommended following application or before the next mowing. Application may be made to either wet or dry foliage.

FERTIGATION: 18-3-4 may be injected during each irrigation utilizing the current technology and equipment available to the golf course superintendent. It is recommended that rates be in accordance with soil test data and in accordance with the equipment manufacturer's recommendations.

GUARANTEED ANALYSIS

Total Nitrogen (N)	18.0%
Available Phosphorus (P₂O₅)	3.0%
Soluble Potash (K₂O)	4.0%
Copper (Cu)	0.12%
Iron (Fe)	1.0%
Manganese (Mn)	0.1%
Zinc (Zn)	0.1%

Derived from Urea, Phosphoric Acid, Potassium Nitrate, Iron Sulfate, Copper Sulfate, Manganese Sulfate, Citric Acid, Zinc Sulfate, Seaweed Extract, and Humic and Fulvic Acids

NET WEIGHT: 26.5# (10.6#/Gallon) NET CONTENTS: 2.5 GALLONS

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