



Osmocote
PLUS **Controlled
Release
Fertilizer**

Osmocote® Plus 15-9-12 Features

- **For Full Season Feeding of Foliage, Nursery Stock, Greenhouse Ornamental Crops and Landscapes**
- **Proven performance of Osmocote® NPK – with six trace elements and magnesium**
- **The benefit of controlled release major and minor elements with the convenience of providing plant nutritional needs consistently throughout the crop growing cycle**
- **Two sources of iron (iron EDTA and iron sulfate) provide excellent greening. Highest iron EDTA of “all-in-one” coated fertilizers**

DESCRIPTION

This product is composed of granules of dry plant nutrients which have been encapsulated within multiple layers of polymeric resin. Water penetrates the permeable shell and dissolves the nutrient core. The resulting osmotic pressure within the granule releases the plant nutrients through the coating and into surrounding soil medium.

The only external environmental factor that affects product release is soil temperature. Water has no effect. Decreases in soil temperature decreases release. Increased soil temperature increases release. Actual product longevity, as opposed to release, is independent upon individual cultural practice, climatic conditions and soil temperature conditions.

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PLUS



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Longevity: In general, the 60° to 70° F average media temperature range is associated with Northern Tier and Pacific Northwest states. The 80° to 90° F range is usually associated with Southern U.S. regions (West, Central, East). In Florida and other geographic areas, average growing medium temperature can be higher at times. Growing medium temperature will influence longevity of this product. However, once the nutrients are released, nutrient availability is affected by the growing medium characteristics and the frequency of rainfall or irrigation, in areas of high temperature and frequent heavy rainfall (continuous leaching), field longevity will be reduced.

Occasionally, released fertilizer salts may accumulate on the product surface causing it to appear whit. This is a normal occurrence and will disappear with irrigation.

LONGEVITY			
At the following Average Media Temperature (°F)			
60°	70°	80°	90°
6-7 months	5-6 months	4-5 months	3-4 months

GUARANTEED ANALYSIS

TOTAL NITROGEN (N)*	15.0%
Ammoniacal Nitrogen.....	7.0%
Nitrate Nitrogen.....	8.0%
AVAILABLE PHOSPHATE (P₂O₅)*	9.0%
SOLUBLE POTASH (K₂O)	12.0%
MAGNESIUM (Mg)*.....	1.0%
SULFUR (S)*.....	2.3%
BORON (B)*.....	0.02%
COPPER (Cu)*.....	0.05%
IRON (Fe)*.....	0.45%
Chelated Iron (Fe)*.....	0.23%
MANGANESE (Mn)*.....	0.06%
MOLYBDENUM (Mo)*.....	0.02%
ZINC (Zn)*.....	0.05%

Derived from: Ammonium nitrate, ammonium phosphate, potassium nitrate, calcium phosphate, magnesium sulfate, boric acid, copper sulfate, iron sulfate, iron EDTA, manganese sulfate, sodium molybdate, zinc sulfate and zinc oxide.

* The nitrogen, phosphorus, potassium, magnesium, sulfur, boron, iron, manganese, molybdenum and zinc have been coated to provide 15% coated slow-release nitrogen (N), 8% coated slow-release phosphate (P₂O₅), 11% coated slow-release potash (K₂O), 0.9% coated slow-release magnesium (Mg), 1.9% coated slow-release sulfur (S), 0.4% coated slow-release iron (Fe), 0.05% coated slow-release manganese (Mn), 0.018% coated slow-release molybdenum (Mo), and 0.017% coated slow-release Zinc (Zn).

DIRECTION FOR USE

Application Rates

The range of application rates listed in a national rate range is intended as a guideline in developing a fertilization program. The low, medium and high rates were developed on a national scale and therefore certain rates may not apply to your area or growing conditions. The appropriate application rate depends largely on plant type, container size, growing medium, growing environment and the extent of leaching (See Product Trial Section).

Growing Conditions/Practices

Associated with LOW Rates:

- Salt sensitive plants (azalea, ferns, gardenia, heather, rhododendrons, etc.)
- High water retentive media (such as media containing field soil, peat, etc.)
- Minimal leaching
- Liquid feed in conjunction with controlled release

Growing Conditions/Practices

Associated with HIGH Rates:

- Salt tolerant, rapidly growing plants (heavy feeders)
- Low water retentive media
- Frequent leaching

RATE SELECTION FOR LARGE CONTAINERS

- For boxes containing native soil or top soil, and irrigated with drip
 - For plants recently field dug or boxed – Use **LOW** rate

 - For boxes containing artificial media only, and irrigated with drip
 - For boxes containing native or topsoil and irrigation is from overhead sprinklers or by hand – Use **MEDIUM** rate

 - For boxes containing artificial media and watered from overhead sprinklers or by hand – use **HIGH** rate.
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PRODUCT TRIAL

Before a new fertilizer product or new rate is used in full production, a product rate trial is recommended to insure satisfactory results given the individual growing practices (media, irrigation, leaching, container size), environment and plant types. Select 2-3 rates and apply to blocks of representative plant types to be grown. Similarly, a fertilizer rate trial should be conducted prior to full scale changes in standard growing practices (media, irrigation, container size, etc.) to insure continued fertilizer success.

PRODUCT

BLENDERS/APPLICATORS

Do not use shredders, mixers, or applicators that may damage the coating. Do not blend longer than necessary.

STORAGE OF MIXES

The moisture contained in most planting mixes will activate and cause a gradual release of nutrients from controlled release fertilizers. Soil mixes that contain this product should always be used within 2 weeks (1 week in the South) after preparation and then only after heavy irrigation.

IRRIGATION MANAGEMENT

If a period of abnormally high temperatures occurs, irrigation volume or frequency should be increased to maintain acceptable soluble salt levels. If soluble salts rise to critical level, apply sufficient water to insure enough leaching (at least 10% - 15% of applied water) to bring soluble salts down to an acceptable level.

IRRIGATION PROGRAM WITH TOPDRESS APPLICATION

Where topdressing is used, irrigation practices should provide complete and ample wetting of the fertilizer prills with each irrigation to provide continuation of the release process and to move released nutrients down into root zone.

Osmocote® Plus Application Rates (Excluding Florida)

INCORPORATING		Low	Medium	High
Per cubic foot	(ounces)	2.4	4.7	7.1
Per cubic yard	(pounds)	4	8	12
Per cubic meter	(kilograms)	2.4	4.7	7.1
Per 100 square feet (to 6 inch depth)*	(pounds)	7	15	22
Per square meter (to 15 cm depth)*	(kilograms)	0.4	0.7	1.1
LANDSCAPE RATES (Broadcast on surface or tilled)		Heavy/Clay Soil	Light/Sandy Soil	
Per 100 square feet	(pounds)	1.5	2.5	
TOP DRESSING (Establish plants)		Low	Medium	High
Standard Containers	(grams) (# pots/cu.yd.)			
5" std. round pot	(800/cu.yd.)	2	5	7
6" std. round pot	(450/cu.yd.)	4	8	12
1 gallon container	(300/cu.yd.)	6	12	18
2 gallon container	(140/cu.yd.)	13	26	39
3 gallon container	(80/cu.yd.)	23	45	68
5 gallon container	(50/cu.yd.)	36	73	109
7 gallon container	(35/cu.yd.)	52	104	156
Large Containers				
	Surface area			
10 gallon	1.4 sq. ft.	63	126	188
15 gallon	1.5 sq. ft.	67	135	202
20 gallon	2.3 sq. ft.	103	206	310
25 gallon	2.8 sq. ft.	126	251	377
45 gallon	4.8 sq. ft.	215	431	646
24 in box	4.0 sq. ft.	179	359	538
30 in box	6.25 sq. ft.	280	561	841
36 in box	9.0 sq. ft.	303	606	1211
48 in box	16.0 sq. ft.	718	1435	2153
Larger Containers use rate per sq. ft.	1.0 sq. ft.	45	90	135

* Rates for greenhouse and nursery growing beds, or incorporating mixes on a slab.

Approximate Volume Measure for Osmocote Plus

LOW Rates for sensitive plants and when using liquid feed
 MED Rates for nursery stock
 HIGH Rates for heavy feeding crops
 (For more information, see section on application rates)

1 tsp. = 5 grams 1/3 cup = 86 grams
 1 tbl. = 15 grams 1/2 cup = 126 grams
 1/4 cup = 63 grams 1 cup = 252 grams

28 grams (g) = 1 ounce (oz.)
 454 grams (g) = 1 pound (lb.)

FLORIDA Osmocote® Plus Application Rates

INCORPORATING		GREENHOUSE/SHADE			FULL SUN		
		LOW	MED	HIGH	LOW	MED	HIGH
Per cubic foot	(ounces)	2.4	4.7	7.1	3.0	5.6	8.3
Per cubic yard	(pounds)	4	8	12	5	9.5	14
N per cubic yard	(pounds)	0.6	1.2	1.8	0.75	1.43	2.1
Per cubic meter	(kilograms)	2.4	4.7	7.1	3.0	5.6	8.3
Per 100 square feet (to 6 inch depth)*	(pounds)	7	15	22	9	18	26
Per square meter (to 15 cm depth)*	(kilograms)	0.4	0.7	1.1	0.4	0.8	1.2
LANDSCAPE RATES (Broadcast on surface or tilled)		Heavy/Clay Soil			Light/Sandy Soil		
Per 100 square feet	(pounds)	1.5			2.5		
TOP DRESSING (Establish plants) Standard Containers		GREENHOUSE/SHADE			FULL SUN		
		LOW	MED	HIGH	LOW	MED	HIGH
	(grams) (# pots/cu.yd.)						
1 gallon container	(300/cu.yd.)	6	12	18	8	14	21
2 gallon container	(140/cu.yd.)	13	26	39	16	32	45
3 gallon container	(80/cu.yd.)	23	46	69	28	54	80
5 gallon container	(50/cu.yd.)	32	64	96	40	75	112
7 gallon container	(35/cu.yd.)	43	86	129	58	102	150
Large Containers	Surface area						
10 gallon	1.4 sq. ft.	63	126	188	78	149	220
15 gallon	1.5 sq. ft.	67	135	202	84	160	235
20 gallon	2.3 sq. ft.	103	206	310	129	245	361
25 gallon	2.8 sq. ft.	126	251	377	157	298	440
45 gallon	4.8 sq. ft.	215	431	646	269	511	754
24 in box	4.0 sq. ft.	179	359	538	244	426	628
30 in box	6.25 sq. ft.	280	561	841	350	666	981
36 in box	9.0 sq. ft.	404	807	1211	505	959	1413
48 in box	16.0 sq. ft.	718	1435	2153	897	1704	2512
Larger Containers use rate per sq. ft.	1.0 sq. ft.	45	90	135	67	123	157

* Rates for greenhouse and nursery growing beds, or incorporating mixes on a slab.

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