



BioWorks®
How You Grow Matters™



CEASE® for Disease Management in Greenhouse Grown

CEASE® is a biofungicide that is effective for the management of foliar and soil borne pathogens. CEASE contains resting spores of *Bacillus subtilis* (strain QST 713) and secondary metabolites with fungicidal and bactericidal activity. CEASE is not a curative but is used in a preventive disease management program. CEASE has both foliar and soil activity, providing a broad array of uses.

Foliar Applications

For maximum effectiveness apply soon after emergence or transplant and when conditions are conducive for disease development before the onset of symptoms. CEASE applications are made with a 1-2% spray solution (see rate chart below). In most instances a 1 % solution will provide adequate control on a 7-10 day schedule with thorough spray coverage. Under conditions of severe disease use the shorter interval and tank-mix or rotate with other registered fungicides.

CEASE can be used to manage many common fungal diseases such as Anthracnose (*Colletotrichum* spp.), gray mold (*Botrytis cinerea*) and powdery mildew (various spp.). It is effective on bacterial diseases caused by *Xanthomonas* spp. and *Pseudomonas* spp. It is best employed in an integrated program alternating with other registered biological or synthetic fungicides. In particular, bacterial diseases are controlled best when used in a program with copper-based products or potassium bicarbonate such as MilStop®. CEASE can be tank-mixed with a wide range of other pesticides or fertilizers. It has a high level of safety to plants.

Soil Applications

CEASE has its origins as a soil borne bacteria. Thus it provides additional benefits when employed as a soil drench to greenhouse vegetables. Unlike foliar applications, Cease will colonize the roots of plants as they grow and produce the same fungicidal and bactericidal products present in a jug of CEASE. This colonization provides a zone of protection, reducing the incidence of common soil diseases caused by species of *Pythium*, *Phytophthora*, *Rhizoctonia* and *Fusarium*.

CEASE should be applied as a soil drench at or right after seeding or transplanting vegetables. To maintain optimal performance repeat the drench with a 1-2% solution every 21 – 28 days. In most instances 1% will provide adequate control. If severe conditions are anticipated, use the 2% rate. CEASE is compatible with a wide range of nutrients. It is not known to interfere with mycorrhizal organisms. It has a high level of safety to plants.

CEASE Application Rates

Concentration	Amount / 100 gallon	Amount / 1 gallon	Amount / Liter
1%	4 quarts	1.3 fl oz (2 Tbs+1 ½ tsp)	10 ml
2%	8 quarts	2.6 fl oz (¼ cup + 1 Tbs)	20 ml