

AZOMITE® RESEARCH SNAPSHOT

PEPPERS



A PEPPER RESEARCH STUDY

was conducted at Colorado State University (CSU) in 2017 with P.I. Mark Uchanski, Ph.D. and Ph.D. student Tyler Mason. The effects of soil-applied AZOMITE® treatments were evaluated on two roasting pepper cultivated varieties (cultivars) ‘Stocky Red Roaster (SRR)’ and ‘Early Perfect Italian (EPI)’ under certified organic management at the Agricultural Research Development and Education Center, South in Fort Collins, CO.

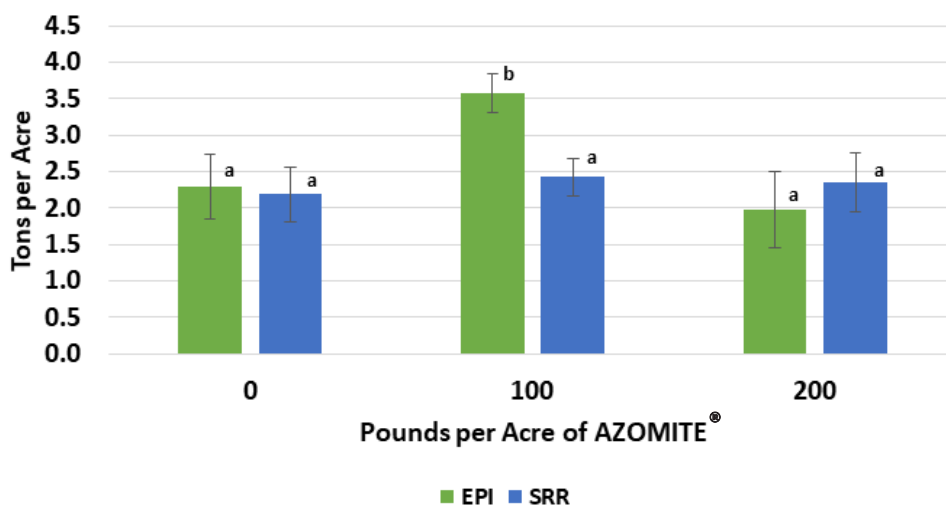
In a randomized complete block design with four replications, an AZOMITE granular application was banded in the row under black plastic mulch at the rates of 0, 100 and 200 lbs/acre. Black plastic mulch and drip tape were used, which are standard grower practices in the intermountain west. Pepper plants were started from seed in the greenhouse in mid-April, then transplanted 18” apart in a single row configuration. Fish emulsion (5-1-1) was applied monthly to all treatments (in July, August and September) to meet crop macronutrient needs. Data was collected on plant height, days to first open flower, marketable yield and soluble solids content. In addition, leaf tissue and soil samples were collected for nutrient content (contained in the full report). A return on investment (ROI) based on the analyzed yield data was determined by a CSU Extension Regional Specialist.

AZOMITE® BENEFITS AT A GLANCE

- The **weight** of red fruit/plant **increased** by 68% (100 lb/acre rate) for one cultivar, Early Perfect Italian
- ‘Early Perfect Italian’ **revenues increased** by \$17,238/acre (100 lb/acre rate)*
- ‘Stocky Red Roaster’ **revenues increased** by \$9,188/acre (200 lb/acre rate)*
- ‘Early Perfect Italian’ at 100 lb/acre rate **yielded significantly more tons/acre** in Total Marketable Red Fruit
- ‘Stocky Red Roaster’ **produced significantly more total fruit/plant** at 200 lb/acre rate (graph not shown)

* Based on \$3.50/lb for certified organic roasting peppers

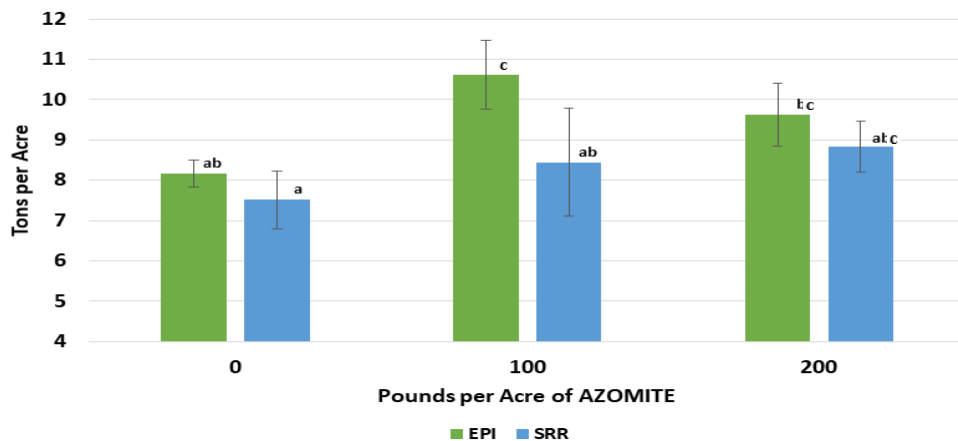
Weight of Marketable Red Fruit Only



EPI = “Early Perfect Italian” SRR = “Stocky Red Roaster”

Total yield in number of fruit/plant for both cultivars at each level of AZOMITE treatment. Letters indicate statistically significant differences (alpha = 0.10)

Total Yield of All Marketable Fruit



Total yield in number of fruit/plant for both cultivars at each level of AZOMITE treatment. Letters indicate statistically significant differences (alpha = 0.10)

The 100#/acre AZOMITE treatment rate significantly increased yield for ‘Early Perfect Italian’ peppers.

The 100#/acre AZOMITE treatment rate similarly increased the weight of mature red fruit by 68% and exhibited a significant increase in marketable tons/acre.

Peppers Harvested From One Picking



REVENUES PER ACRE*

	‘STOCKY RED ROASTER’	‘EARLY PERFECT ITALIAN’
Untreated Control	\$52,594	\$57,115
100 lb AZOMITE/ACRE	\$59,146	\$74,353
200 lb AZOMITE/ACRE	\$61,782	\$67,404

* Based on \$3.50/lb for certified organic roasting

WHAT IS AZOMITE®? AZOMITE is a uniquely natural mineral product mined in central Utah, USA. For more than 70 years, crop producers have used AZOMITE to support plant growth and vitality. AZOMITE is OMRI and CDFA listed for use in certified organic production. Research shows AZOMITE increases yield, grade out and quality in agricultural crops; increases nutrient availability in the soil and uptake in plants and turf, and contains minerals that may improve a plants natural ability to handle stress, while increasing the plant’s capacity to withstand drought and temperature fluctuations.