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PRODUCT NEWS

Highly Efficient Water Improver

This catalytic convertor changes the nature and structure of potentially harmful dissolved minerals and salts and makes hard and brackish water acceptable for consumption of all types of vegetables and flower crops.

The PTH (the acronym for Prevention of Total Hardness) convertors comprises a stainless steel casing with a multi metal and mineral inner core. This core is the result of years of research and development under harsh conditions in the Middle East. Highly resistant to rust and corrosion, it is essentially a brass alloy and contains metals and minerals such as zinc, chrome and nickel.

Units vary in size, the smallest being half an inch in diameter. Each unit works at a different flow rate. Units up to and including 2 inches (50 mm) have male threads on the inlet and outlet. Larger units have flanges, making installation easy and simple.

PTH simply becomes part of the water supply line, enabling farmers to utilize the hard and brack water that often hampers crop growth in Southern Africa through side effects such as stagnation and leaf burn.

HOW PTH WORKS

The PTH convertor works on the principle of ionisation, or de-ionisation, whereby electrons added to the water preclude the bonding of oxygen atoms with other molecules. This results in “wetter water” with increased penetrative qualities. The potentially harmful effects of dissolved mineral salts such as chlorine, sodium (Na or Natrium in Afrikaans), calcium, and magnesium are neutralised. The increased wetting action of the conditioned water improves soil texture: the water is also more easily absorbed by the plants.

BENEFITS TO THE IRRIGATION FARMER

With a PTH water conversion device, the irrigation farmer can manipulate crop growth to achieve faster, healthier and increased yield. Because of enhanced seed germination, he or she also reaps the benefit of his investment sooner.

Increased water penetration means considerable savings. Tests have confirmed that up to 45% more water is absorbed by some soil types after PTH water treatment.

Crops can be cultivated so that some cultivars reach maturity earlier than others.

In short, with PTH more crops and/or flower can be grown faster with less water.

HYROPONICS, TOO

PTH comes into its own in the hydroponics industry for all the above reasons. And, by installing PTH before the injection of the nutrient solution, the absorption rate in plants grown using hydroponics, is significantly increased! Because PTH is 100% environmentally friendly and eliminates any need to use

chemicals, it is ideally suited for use in the boilers required for mushroom farming: it keeps them clean of rust and scale.

Irrigation nozzles, drippers, sprayers and microjets are likewise kept free of clogging and fouling. Even cooling towers benefit from this advantage PTH offer a water consumer.

PROCESSING REFINERIES AND CANNING PLANTS...

Within weeks of installing a PTH device a kelp procession company, Marine Oil Refiners of Simonstown, found that the corrosive rust in their production plant had been completely eliminated.

In another instance, a fish canning factory, Marine Products at Laaiplek on the West Coast has been using a 4 inch PTH device in their plant. During a 20 year period, the PTH unit has kept the plant free from scaling, rust and other fouling, reports maintenance manager Jasper Hoon. "PTH saved us hundreds of thousands of Rands in shutdowns, downtime, manpower, materials and service expenditure", says Hoon.

A ONCE-OFF INVESTMENT

Once the PTH is installed, there are no further costs, it simply carries on doing its job. The longer the convertor is used, the better the soil quality becomes, resulting in ongoing improved crop yields.

There are no moving parts, nothing to replace and maintenance is negligible. Just open the convertor once a year and scrub the core with a wire brush. The nuts at the ends of the smaller units allow easy access for cleaning.

Already used in more than 50 countries, PTH is endorsed in South Africa by leading organisations such as Elsenburg, Netafim, Andrag, Spilhaus and Witzenberg Irrigation. The hydroponics giant, Hygro, recommends the PTH convertor to franchisees hampered by problematic waters.

The sole supplier of PTH products is Pierre Massyn, the founder of PTH Water Treatment, popularly called Water Softening RSA, founded by Pierre's late father Marais, and his uncle, Louis, in Bloemfontein in the early 70's. Please contact Pierre on cell 082 900 9253 or pfmassyn@gmail.com.

(Article in SA Irrigation, February 1999, an unabridged translation from the original Afrikaans.)