

Dr. Ronnie Duncan is a leading breeder of Seashore Paspalum and spent many years developing cultural practices to ensure superintendents' success in managing this turfgrass. I recently had the opportunity to attend a presentation by Dr. Duncan and have outlined below the key points he made. The information is relevant to anyone who might be managing grass in situations where the water is high in sodium or bicarbonates, or the water quality is generally less than ideal.

Several of Dr. Duncan's comments are applicable to the use of Nature Safe on Seashore Paspalums and should be taken into consideration.

- Properly managed Seashore Paspalums can tolerate Na in the water at 6000 PPM (drinking water is normally 300-500 PPM). However, if management practices are not undertaken to manage salts, even Paspalums will not survive in highly saline environments.
- High levels of sodium require calcium to sequester the salt and allow the Seashore Paspalum, or other turfgrass, to survive in an environment that is detrimental to the plant. It is best to frequently apply Ca in small increments.
- Thatch helps the turf hold salts, which has a detrimental impact on microbial activity. Aeration can help get rid of salts by breaking up the thatch and increasing the level of oxygen in the soil. Another key to thatch control in Seashore Paspalum is N management. Paspalums primarily uptake nitrate forms of N since this is the only form of N present in sea water. Paspalum has low N requirements. Hence, a slow release N is a good form of N.
- Superintendents with high bicarbonates in their water can be acidifying the water to remove the bicarbonates. In doing so, the water can have a detrimental impact on soil microbial activity, especially if pH of the water drops below five.
- Seashore Paspalum requires about one-third the amount of N of a Bermudagrass.
- "Calcium Therapy" is part of a Seashore Paspalum fertility program. Use calcium at a ratio of two parts Ca to one part Mg. If you don't maintain this ratio, the turf will yellow. Dr. Duncan indicated that a Ca complex with sugar alcohols or amino acids is a good form to apply.
- Other valuable components of a turf management program in situations where water quality is an issue include amino acids, humus, vitamins and enzymes.

All of these points support the use of Nature Safe in a nutrient management program for Seashore Paspalums. Several of the product features dovetail directly into key points about management of turf in situations where water quality is poor.

- The calcium in Nature Safe comes from steamed bone meal, not acidified bone meal. The calcium is chelated on an amino acid which makes it more readily available to the plant than other forms of Ca and is slowly released.
- Nature Safe is an excellent fertilizer to use at aeration which helps reduce the detrimental impact of salts.
- Nature Safe contains Cookie Meal® which is a source of sugars. Other ingredients include humus, vitamins and enzymes which are beneficial to the soil microbes.
- There are 11 different beneficial microorganisms in Nature Safe. They are in spore form and only become active when exposed to moisture. They help add to microbial populations in saline environments where microorganism populations are challenged by the saline environment or water treatments.
- The N in Nature Safe is slow release N, available to the plant for 12-16 weeks after application. It contains very little ammoniacal N, unlike sludge and manure, so the plant is truly being slow-fed.

The use of NS 5-6-6 at aeration with 7% chelated calcium would be a beneficial part of a Seashore Paspalum fertility program. For fairways, use NS 7-12-0 with 10% chelated calcium in a blend with other sources of N and K is also an excellent tool for use with Seashore Paspalum.

For more information on the use of Nature Safe in a Seashore Paspalum program contact your Nature Safe sales rep.