

North South Discrimination

Making sense out of Off Types!!

It was a few years ago when I was consulting for Hal Hicks, former superintendent at the Seminole Golf Club, Juno Beach, Fl., that Hal posed the question to me. He asked, “George, why is there so much discrimination between the North and the South?” I said, “what!!!!” Hal replied, “You heard me. Why is there so much discrimination between the courses up north and the ones down south?” I said, “What do you mean Hal?” He said, “It’s easy. Just listen to the commentators, golfers, and superintendents. You never hear anything about mutations on Bent grass, or mutations in Poa, or Poa in Bent up North. That seems to be

an acceptable standard up there. You come down south and it is all about grain, mutations and contamination on Bermuda grass.” I said, “Hal, I never really thought that much about it.” He said, “think about it, it’s the truth. Bermuda is looked upon differently than cool season grasses. What is considered acceptable up North is not acceptable down South. Explain that to me,” Hal said!

Well, Hal might just have a point. I never hear much talk about Bent mutation, or Poa Mutations or for that matter Poa/Bent mix. However, it doesn’t take long down south to really stir up a heated conversation over good ole Bermuda greens and its genetic instability. As a matter of fact, it seems to have become a

big part of the conversation down South as of late. Every time you turn around, someone is talking about mutations, grain, or contamination. Maybe we need to refer to Bermuda as the cool season grass of the South and everything would be okay.

Well, there are lots of genetic imperfections on warm season cultivars as well as cool season cultivars. That is the way of life. Based on my experience, genetic imperfections on greens have always been an issue, and I don't see that changing until a magic grass is found. But that doesn't mean that the putting surfaces cannot be good with Off Types (OTs).

As for Bermuda grass putting surfaces, they have come a long way. We have some of the

finest Bermuda cultivars for putting surfaces ever. These Bermuda cultivars, if maintained properly, can be the best in the world.

However, just like Bent and Poa greens, these new Bermudas can still mutate. As these changes occur, they can look and grow the same as the parent grass or just have a different color. However, they can be quite different than the parent grass with respect to growth habit, size, and shape. This is where things get tricky. The message is, expect change in your parent grass over time.

So, how does one manage this change over time? Adapt to it. Embrace it. And communicate it. Let the golfers know that there is not a North/South discrimination problem. Let them know that Bermuda is just like Bent. It

may change as it ages. And this change can come in the form of mutations or phenotypes.

When you see these different grass types on your greens, the first thing you should do is start adjusting to them and accepting them.

They are going to be with you forever unless you are one of the lucky ones that gets to re-grass every 5 to 10 years. Accept the fact that they are probably going to get worse with age.

If you can't deal with them, then you have a job on your hands convincing the club that these "Off Types" on your greens are not conducive to your style of management. Good luck with that!! I know, everyone would like brand new greens every few years to get rid of these genetic variations or phenotypes, but that is not reality. This is where you need to be

creative. Design a maintenance program that works universally for all the grass if possible as age sets in. It just requires “Out of the Box” thinking.

Before we discuss dealing with OTs, let’s not confuse them with contamination.

Contamination is typically encroachment or mechanical displacement from the collars, aprons, roughs, or fairways of another grass.



Encroachment

To prevent contamination, set up an edging program and pay attention to how you aerify and/or verticut so external grasses are not allowed onto the green from the outside in. Managing OTs is easy compared to managing

contamination. Once you get behind on contamination, it is difficult and very expensive to fix. And it can be impossible to manage.

Now that we have identified the difference between contamination and OTs, what are some ideas on managing OTs of aged greens?

Let's look to nitrogen first. It has more influence over how grass grows than any one nutrient. When someone is faced with older greens with multiple OTs and/or phenotypes, nitrogen may play a major role in how these grasses respond. Most often, these "OTs" over express themselves based on the amount of nitrogen applied. Why? Because they typically have a stronger stoloniferous growth habit than the parent grass in most cases. This may allow them to become more dominant than the

parent grass with too much N. When greens are new and there is a pure mono stand, growth response is uniform and predictable. But this is not the case when you are dealing with OTs mixed into a parent grass of older greens.

These OTs can express themselves differently based on growth habit, size, shapes, speed of growth, heat, humidity, etc. Therefore, it may require a lot of creative management to keep these grass types compatible with the parent grass on your putting surface. Too much nitrogen and the wrong kind of nitrogen can turn these OTs into Bermuda- like Kudzu that can be a disaster for maintaining a quality putting surface. The best starting point in my opinion is to use nitrogen in moderation. This means light and frequent applications. Avoid

heavy dosages of nitrogen on your greens with OTs and slow -release nitrogen that releases too much as it gets hotter. Then you will lose control. And it becomes tough to regain it.

Plant Growth Regulators (PGRs) are another great way to mitigate OTs. They should be used in careful moderation with proper amounts of nitrogen to help regulate them. However, too much PGR with too little nitrogen can magnify these different grass types. So, it is important to find the sweet spot. This is usually done through trial and error. There is one thing for sure, I would not suggest fairway type rates of PGRs on aged ultradwarf Bermuda greens to mitigate OT expression. This may exacerbate the presence of these rogue OTs due to their morphological makeup. Therefore, if large

doses of PGRs are applied over an entire green, the parent plants may become over-regulated relative to the OT plants. This will create an uneven canopy that is difficult to manage as a putting surface – especially at a low height of cut. With that said, timing, frequency, application rates and nitrogen input are all very important in making these PGRs work efficiently. So be very constructive in using them and you will be pleased with the outcome.

Although it has not been researched a lot on greens with OTs, Indole-3-butyric acid (Plant Hormone) may be a product to add to your toolbox. It may help drive root growth at the expense of top growth and reduce how OTs express themselves relative to the parent grass.

To my knowledge there is no harm in trying an IBA in conjunction with a PGR. Do your research first.

Mower set-up and adjustment can be a big deal when managing aged greens with OTs.

Start by using ultra-thin bedknives on your mowing units. They give you a much better cut. Thick faced knives may promote scalping of OTs by pushing the leaf blade stolon forward and chopping it off instead of cutting the leaf blade. I know!! Thin bed-knives are more expensive. But we are talking about greens.

Then there is bed-knife angle and type of bed-knife. If it is too steep, it may accentuate scalping of these OTs and cause a wash board appearance.

Solid rollers vs. grooved rollers. Solids are less aggressive than grooved rollers. This adjustment can be very beneficial. I would say this is a must.

The last option is to remove the groomer attachments on the front of your cutting units if you have a severe OT presence. These attachments are very heavy and put a lot of down pressure on the front part of the mowing unit and may exacerbate the angle of bed-knife and create a digging/scalping action.

Of course, all these adjustments must be compatible with the parent grass as well.

While we don't necessarily understand why grasses change the way they do, it seems as though age and stress are contributing factors. Maybe some of the above ideas may help in dealing with this change on your greens and make for a better putting surface in the future.