



Sand is not a four-letter
word





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questions.



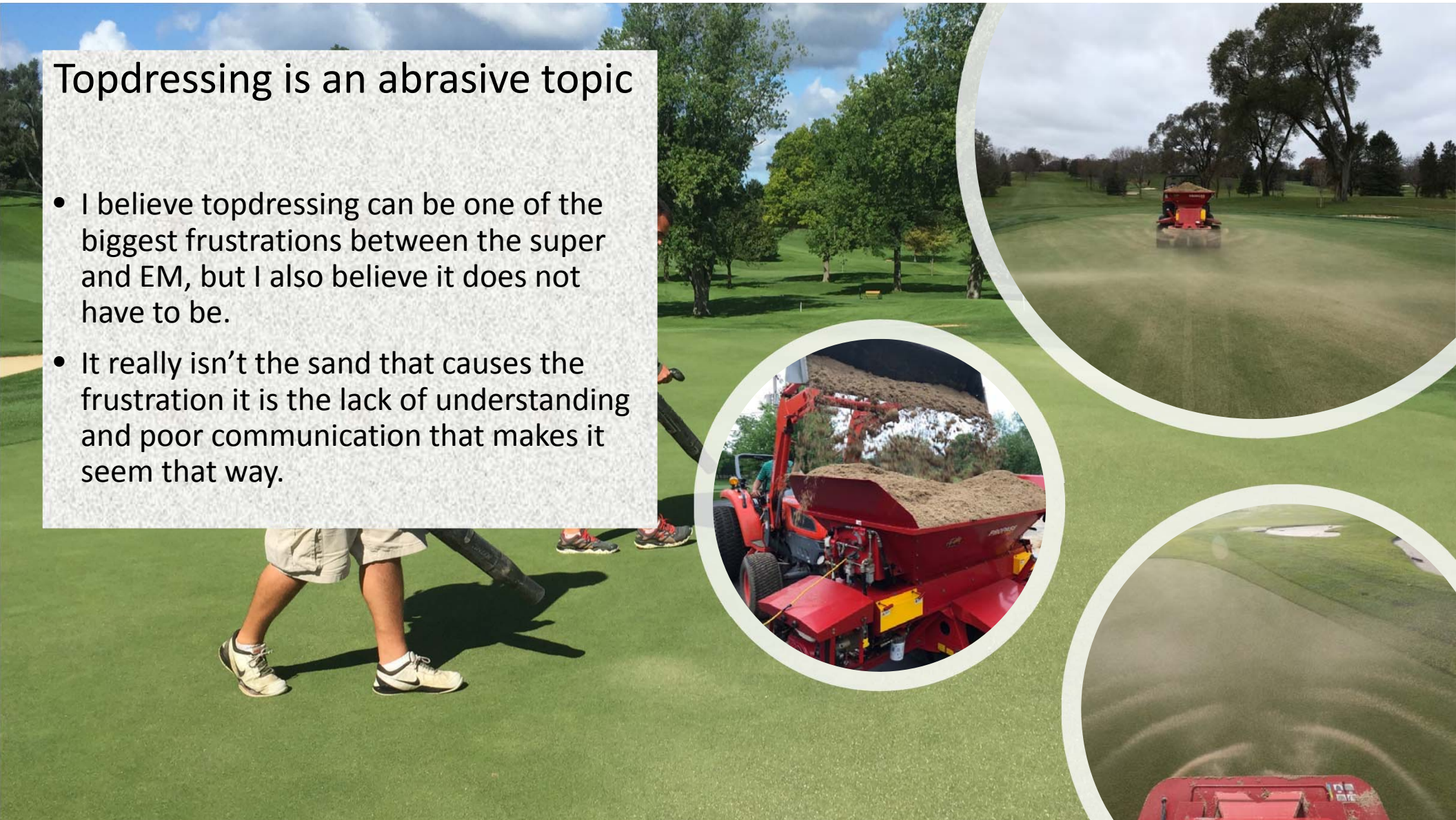
Sand is found just about any place you look on a golf course.


- It is used in the soil profile to dilute organic matter, and improve drainage.
- As a stabilizer in landscaping and of course to fill bunkers.
- Sand also plays a large roll in many cultural practices such as verticutting, venting, and deep tine aerification.



Topdressing is an abrasive topic

- I believe topdressing can be one of the biggest frustrations between the super and EM, but I also believe it does not have to be.
- It really isn't the sand that causes the frustration it is the lack of understanding and poor communication that makes it seem that way.






A good example of this frustration was a post on twitter

In late September an EM posed the question.

“Does anyone else out there mow greens the day after topdressing, or worse, the day after aerification??”

One of my peers responded with “We mow the day after topdressing every single time. Everything we do is for the golfer’s experience, never to make our job easier.”



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At that moment I saw someone that understands and someone that doesn't yet.

Open communication between the EM and the super will go a long way towards alleviating frustration on both sides and will only serve to improve the end result.



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Take time to help the other understand what you are doing, why you are doing it, and listen to how it affects them and what they are doing.

Keep an open mind and don't be critical.

Make a habit of taking a course tour together to look at conditions, appearance, and playability.

Don't be afraid to ask questions and don't be afraid to disagree.





Most of all remember you are on the same team. Respect one another, remember the passion you both have for your jobs, and you are both there for the same customer.

Why Sand?



Why Sand?



It is used to amend the soil profile and it aids in the dilution of organic matter

It improves drainage and gas exchange

It smooths out and helps to firm the playing surface.





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Most of the sand left on top will work into the canopy.
This will help to protect the crown, smooth and firm
the surface, as well as dilute organic matter.

- Less organic matter will contribute to better drainage and healthier turf.
- A smooth firm surface will play better, be more consistent, and will also greatly improve after cut appearance.
- Improved after cut appearance indicates a good quality of cut, a good quality cut means healthier turf, and healthier turf means a happy super and EM.



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Most of the sand remaining on the surface will be picked up by mowing equipment, this will improve appearance and playability, but it will accelerate equipment wear.



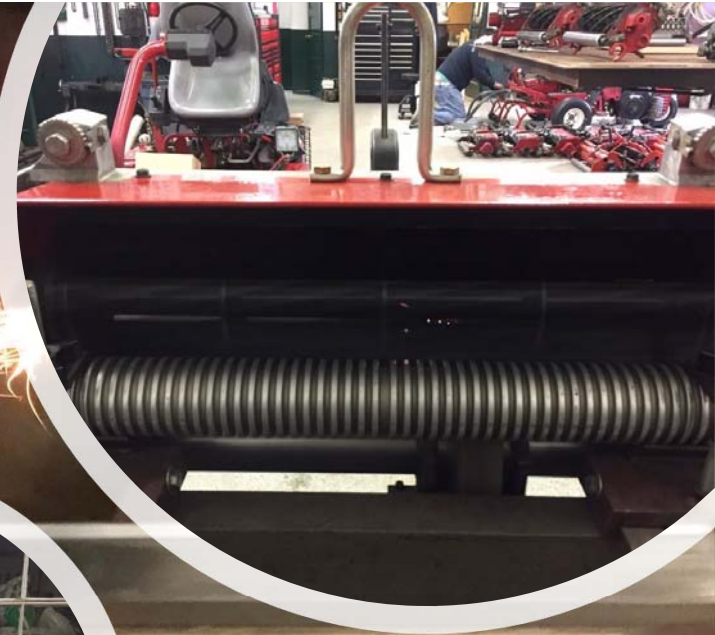


More wear to reels, bedknives, bearings and seals, will require more parts and mean more edge maintenance time but is all part of producing the best product for our customer.



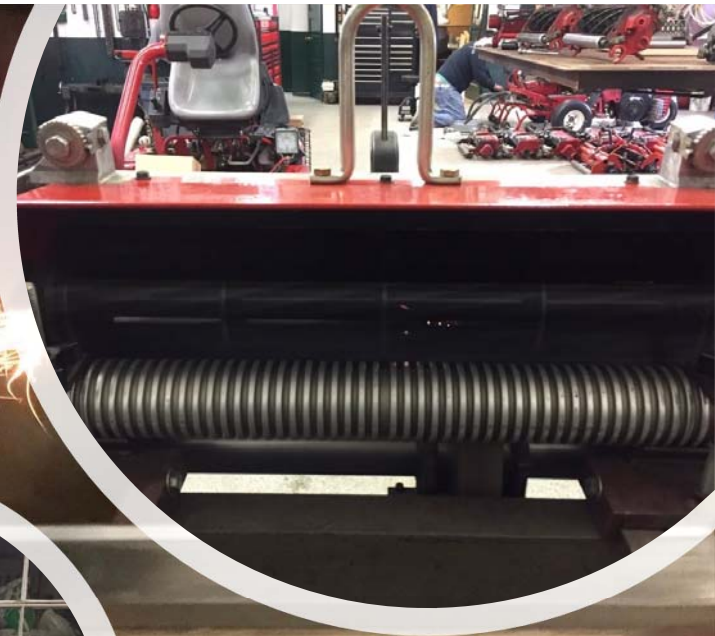



The superintendent is aware of the damage sand can cause to equipment and is not throwing sand just to make more work for the EM or increase costs associated with equipment maintenance.



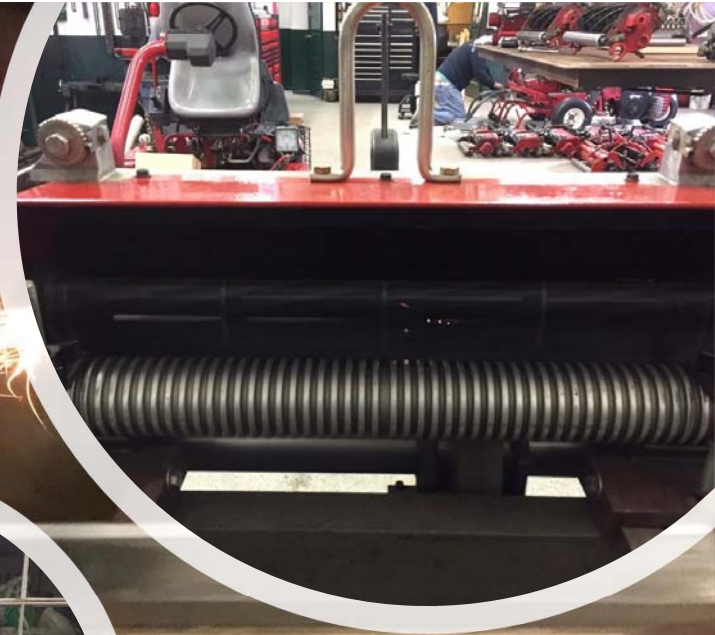


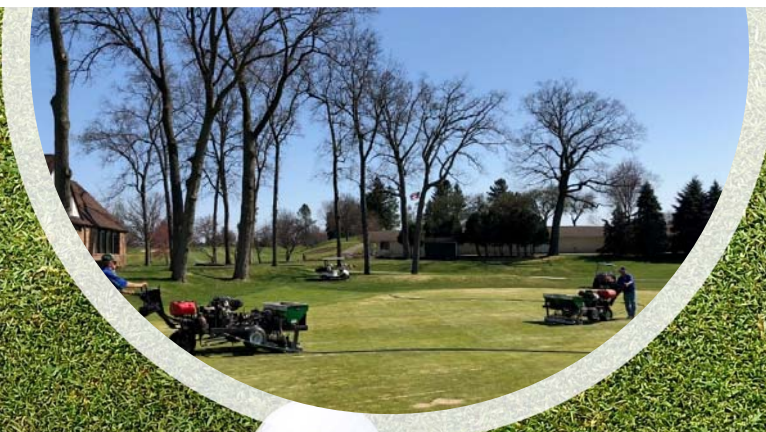
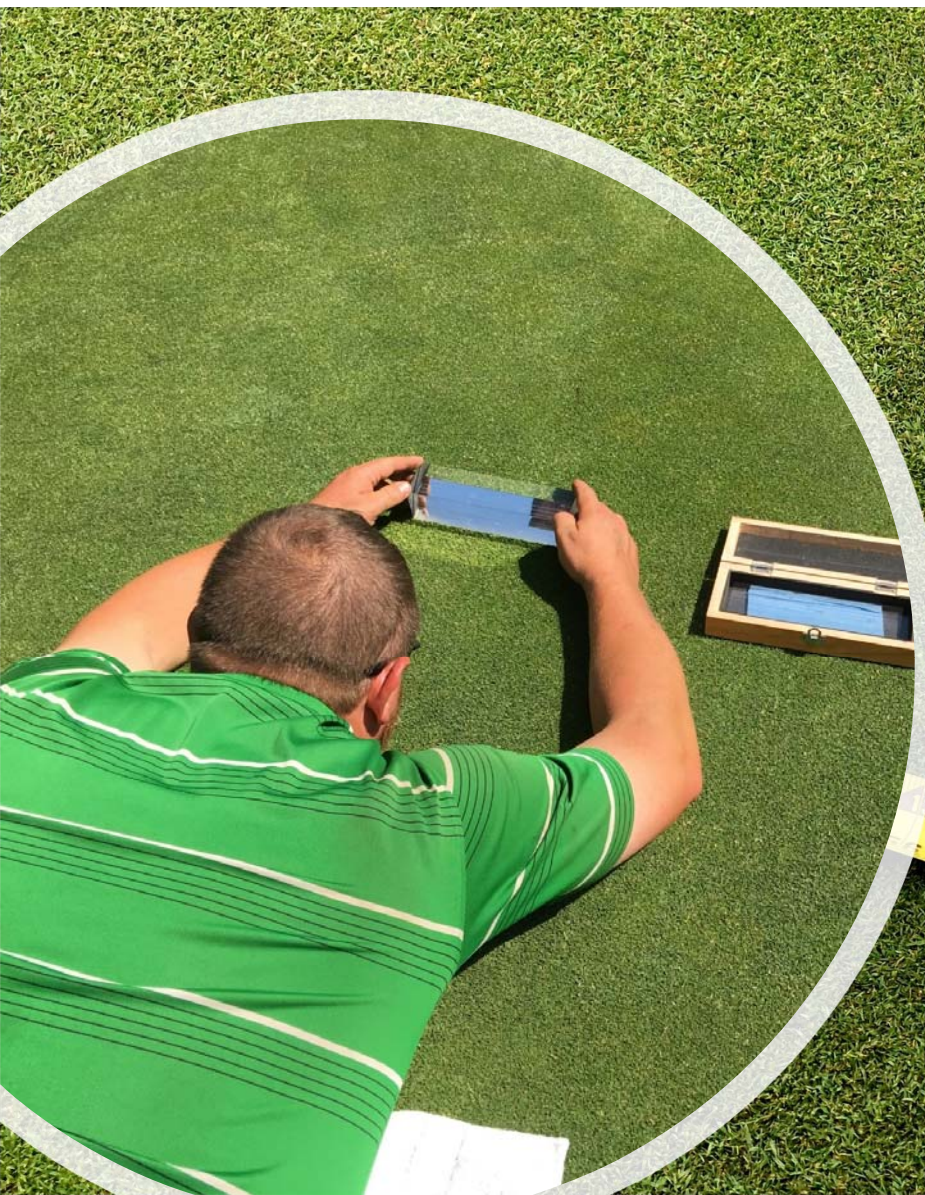
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The super should also understand the EM is not wasting time or money when it is determined reels need to be sharpened or parts need to be replaced.





Likewise, the equipment manager should also be aware of the benefits of sand and how even though it is rough on the equipment the end result is worth the extra time and expense.







My first substantial experience with sand was aerification and it was an experience to say the least.



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I was much more prepared the following season with a decent understanding of grinding as well as better facing and lapping techniques..





When we first started as a team, we were topdressing once a month but very heavily.

This was not great for the turf and very taxing on the equipment as well as the staff.

Over the next few seasons we increased our topdressing applications but decreased the rate in turn, eventually we got to the point of topdressing weekly, this proved to be too frequent for us and our needs.

The targeted sweet spot we developed is a by-weekly topdressing adjusted by turf needs, and weather conditions.



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Light but frequent applications of sand have allowed us to maintain the product we are targeting while minimizing damage to the turf, equipment, and disruption to the membership.

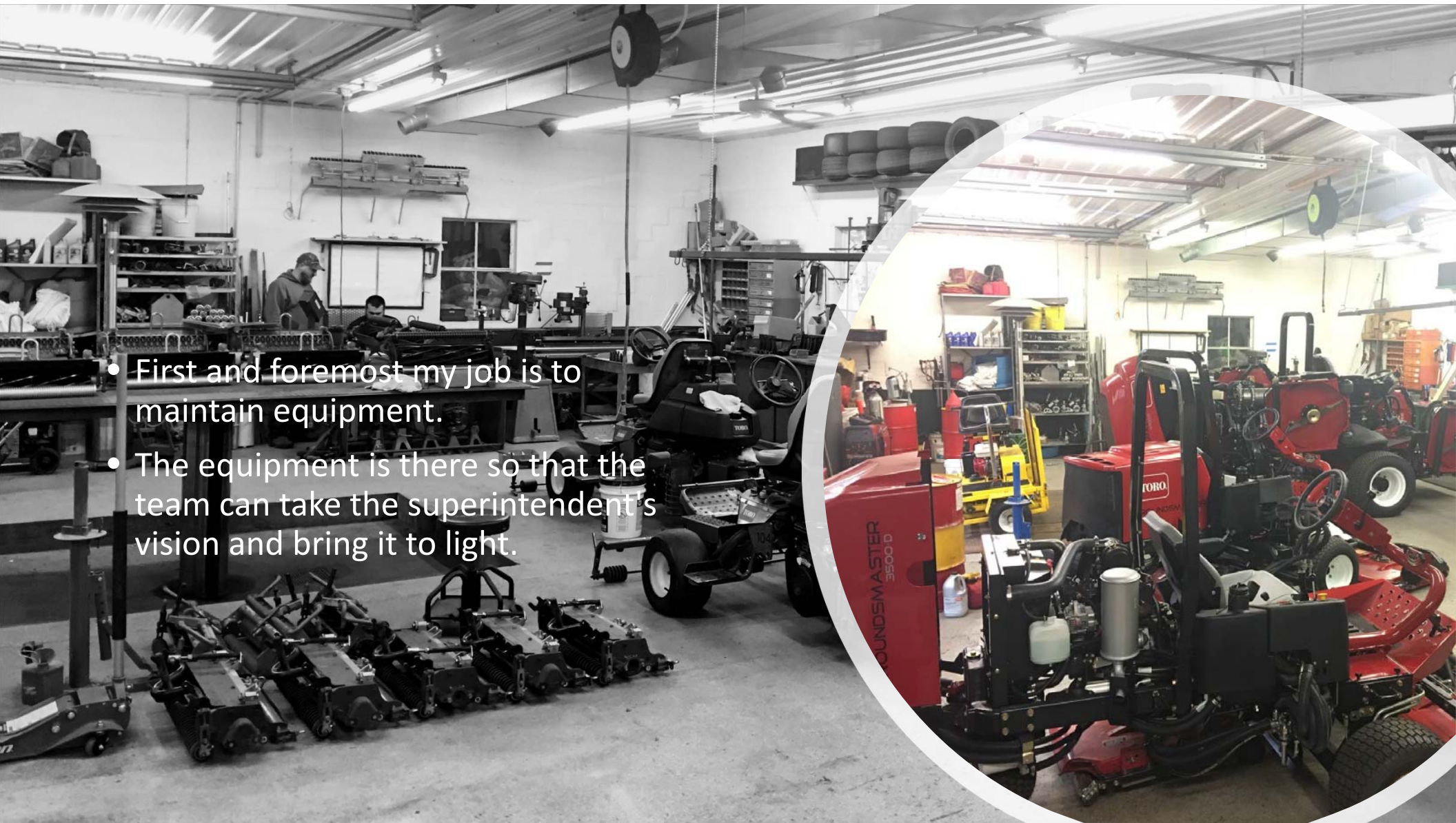
Sand is rough on equipment, so this got us thinking.

- What we can do to reduce its impact?
- Why don't we try sand reels?
- What about 8 or 11 blades vs. 14?
- Different bedknives?
- What about angle of aggression?
- What style of mower will work best?
- How can we get more sand into the canopy so the mower doesn't interact with it?



The sweet spot we have found allows us to meet our target, put out an ever-improving product, limits disruption to the membership and greatly reduces excessive equipment maintenance.





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- I can let sand make this job difficult or I can make it part of what I do.



- I can let sand make this job difficult or I can make it part of what I do.
- I choose to make it part of what I do.



- We don't just throw sand blindly or because we are told it is what we should be doing.
- We use knowledge and data to guide us.



Our knowledge is gained through observation, communication, and sometimes good old fashioned trial and error.



We use various tools to gather data.
Some of this data is captured in real
time, and some of it comes from
outside recourses.



When working knowledge is combined with objective data a strong game plan can be developed, and a strong game plan will alleviate many frustrations.



Here are some of the tools we use to gather real time data.

- TDR moisture meter
- TruFirm turf firmness meter
- Stimpmeter
- Soil profiler
- Turf evaluator and prisms



ISTRC (International Sports Turf Research Center) testing is another tool we use to guide our use of sand and how we integrate that sand into the soil profile. This testing provides very in-depth data and is invaluable.



This is some of the data that we use from our ISTRC testing.

- Particle size distribution
 - What kind of sand should we be using?
 - Is the sand we are currently using correct and is it integrating into the profile?
- Infiltration rates
 - How fast is water flowing through the profile and is it a good rate?
- Pore space both micro and macro
 - How much space is available in the root zone to hold water and to hold air?
- Organic matter analysis
 - How much is there?
 - How is it effecting the soil profile?
 - What should our target be?
- Recommended target surface disruption
 - What percentage of the surface should be disrupted in a season?



Surface disruption is a great way to help integrate sand into the soil profile and work it into the canopy.



Here are some of the cultural practices that we use to disrupt the surface of our turf.

Dry-Ject, sand injection

Venting / needle tining

Deep tine and core aerification

Deep verticutting



Again when working knowledge is combined with objective data a strong game plan can be developed, and a strong game plan will alleviate many frustrations.

In the end we all win with sand when we work together and understand one another.





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