Ironbridge Golf Club Soil Report

March 29, 2018

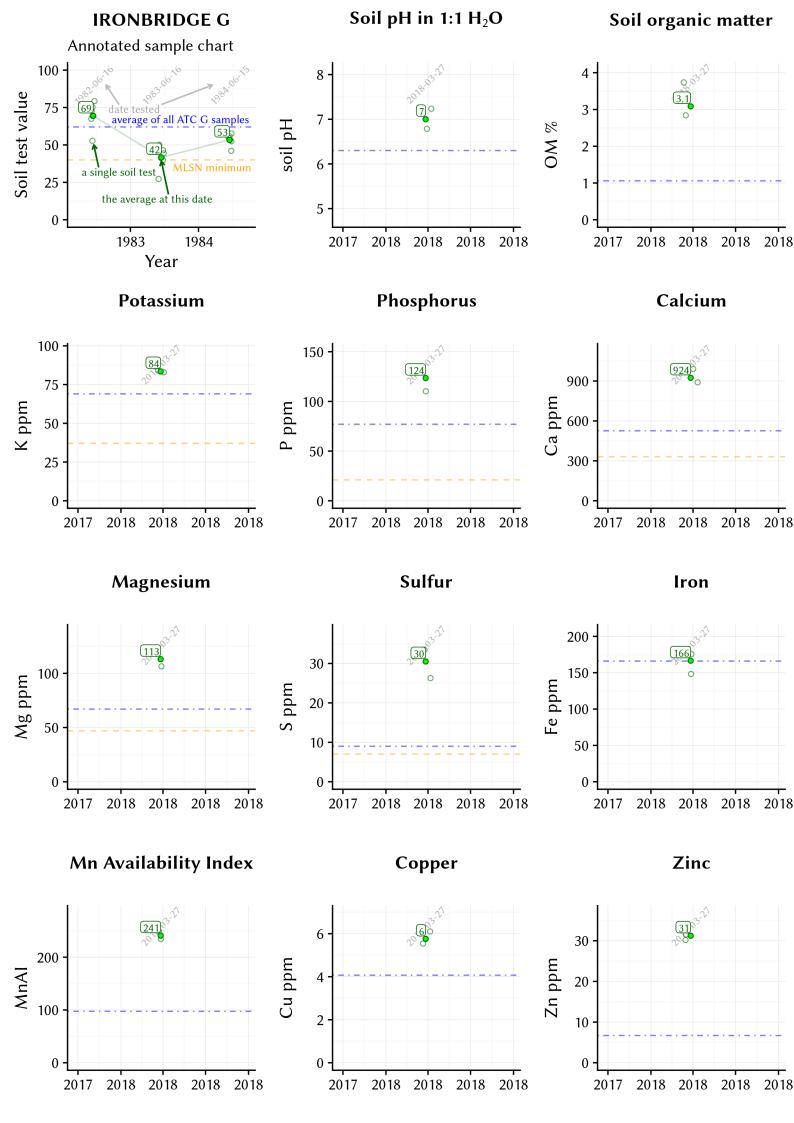
Micah Woods, Ph.D. Chief Scientist Asian Turfgrass Center



Greens

This is a summary and recommendations for the 2 samples from the greens.

- **pH** Both samples have a pH of 7. This is an optimum level for soil microbial activity and for soil nutrient availability.
- **Organic matter** The average is 3.1%. With this amount of organic matter, there should be a moderate amount of N released during the hottest months of the year, and the water holding capacity of the rootzone should be moderate to high.
- **Available nitrogen** The average is 5 ppm. This is normal. It indicates that the grass roots have been able to use almost all the N supplied as fertilizer.
- **Potassium** The average is 84 ppm. This is well above the MLSN guideline of 37 ppm. If you apply N and K in a 2:1 ratio (2 parts N, 1 part K) this year, the soil should remain at about this level. I recommend applying N and K in a 3:1 ratio so that the grass can use some of the extra K in the soil.
- **Phosphorus** The average is 124 ppm. This is more than enough to meet the grass requirements. No P should be applied for the next year.
- **Calcium** The average is 924 ppm. This is more than enough to meet the grass requirements. No Ca fertilizer is required.
- **Magnesium** The average is 113 ppm. This is more than enough to meet the grass requirements. No Mg fertilizer is required.
- **Sulfur** The average is 30 ppm. This is more than enough to meet the grass requirements. No S fertilizer is required.
- **Micronutrients** All are present at normal levels in the soil. None are required as fertilizer.
- **Soil salinity** Salt in the soil is low and will have no effect on turfgrass performance. From the water test sent to me previously, the salt content in the water is low. I don't expect problems in dry weather mid-summer.



Fairways

This is a summary and recommendations for the 2 samples from the fairways.

- **pH** The range is 7.4 to 7.5. This is an optimum range for nutrient availability and soil microbial activity. When the grass is actively growing there may be a chance of iron chlorosis at this pH; rather than try to change the pH, I would check for the iron chlorosis and if it is a problem, selectively apply some iron as a foliar spray.
- **Organic matter** The average is more than 8%. At this level of OM, the soil should be releasing almost all the N the grass requires during the hottest months of the year. I would plan N fertilizer applications accordingly.
- **Available nitrogen** The average is 15 ppm. This is normal. That is equivalent to about 0.4 lbs N/1000 ft² in a plant available form.
- **Potassium** The average is 260 ppm. This is more than enough to meet the grass requirements; none is required as fertilizer this year.
- **Phosphorus** The average is 54 ppm. This is enough to meet the grass requirements. None is required as fertilizer this year. The sample from 14 had 27 ppm which is closer to the minimum guideline. I think it will still be fine; if you notice the fairways do not grow as rapidly as expected, you might do a test to see if you get a response to P fertilizer.

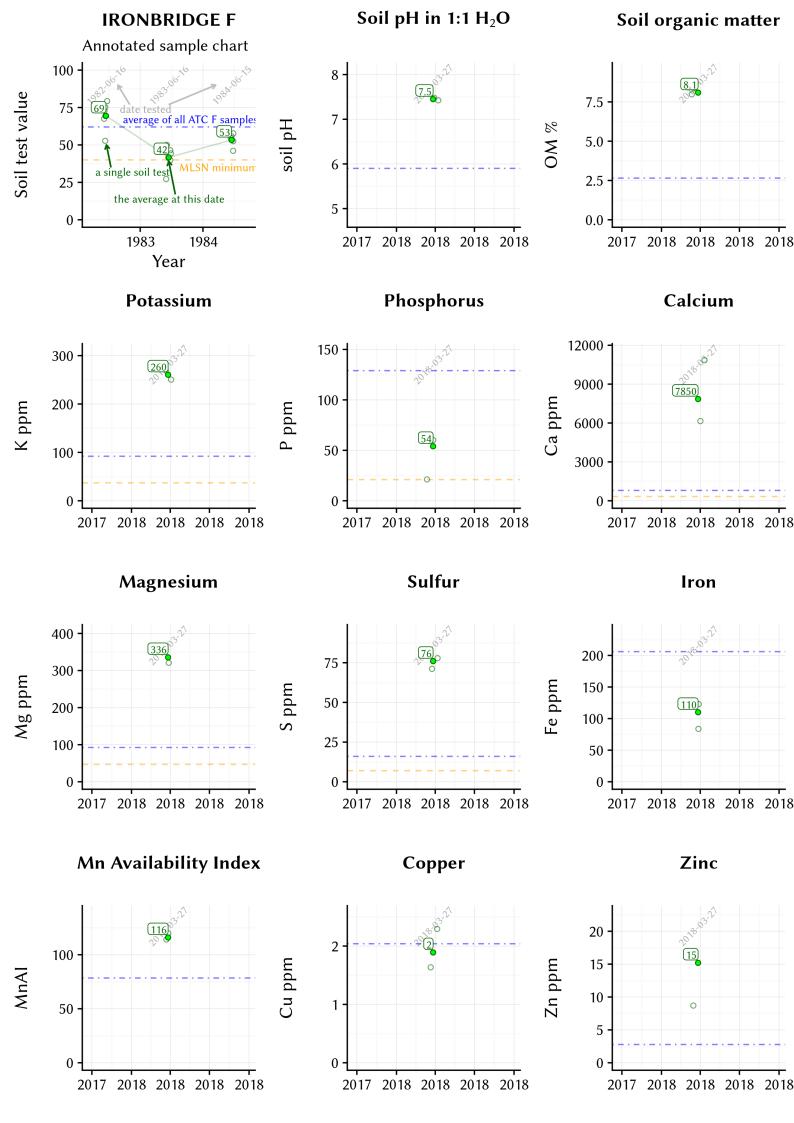
Calcium There is plenty in the soil; none is required as fertilizer.

Magnesium There is plenty in the soil. None is required as fertilizer.

Sulfur The average is 76 ppm. This is more than enough to meet the grass requirements. None is needed as fertilizer.

Micronutrients All are present at normal amounts in the soil. None are required as fertilizer.

Soil salinity The salt in the soil is low and will have no effect on turfgrass performance.



Tees

This is a summary and recommendations for the 2 samples from the tees.

pH The range is 7.1 to 7.2. This is an optimum level for soil nutrient availability and soil microbial activity.

Organic matter The average is 3.7%. You can expect a moderate amount of N release during the hottest months of the year.

Available nitrogen The average is about 6 ppm. This is normal. It indicates the roots have been about to use almost all the N applied as fertilizer or released from the soil.

Potassium The average is 135 ppm. This is more than enough to meet the grass requirements this year. None is required as fertilizer.

Phosphorus The average is 176 ppm. This is more than enough to meet the grass requirements. None should be applied this year.

Calcium The average is more than 1,000 ppm. None is required as fertilizer.

Magnesium The average is almost 200 ppm. None is required as fertilizer.

Sulfur The average is 64 ppm. This is more than enough to meet the grass requirements. None is required as fertilizer.

Micronutrients All are present at normal levels in the soill. None are required as fertilizer.

Soil salinity Salt in the soil is low and will have no effect on turfgrass performance.

