



Rails are moved frequently to spread out wear on the turf. Photos courtesy: O.M. Scott & Sons.



Hoof marks are repaired daily.

Turf Track Maintenance

There's something a little hypnotic about thoroughbred turf track racing. The trance begins slowly, subtly, with colors that catch the eye; the emerald-green track dotted with the circus-like hues worn by jockeys atop perfect horses walking, almost floating, to the gate.

One would expect the spell to break once the 2,000-lb steeds explode from the gate, but if anything it intensifies. Both the occasional fan and the experienced handicapper can be seen rocking, at first slowly, in their seats as the horses approach the first turn.

Like the horses and the jockeys, the spectators lean slightly into the corner, trying to gain an edge, while tufts of green fly from the horses' hooves. It would take a week for the practice tee of a busy

municipal golf course to produce the type of divots that a thoroughbred race can kick up in a little more than a minute.

The rhythmic motion of a full gallop creates an illusion; the thoroughbreds' legs are moving slowly through a tiny minefield, where chunks of turf are blown into the air with each step. If colors and adrenalin induce the trance, it is the gallop, and the small explosion of green it causes, which cement it. Turf racing is sheer delight.

It is unless you happen to be a track superintendent at one of the few horse racing facilities in the United States or Canada that have turf. Of course, track superintendents love turf racing as much as the fans, but the fans don't have to keep a turf track operational for a season.

Not that maintaining a dirt track is effort-

less. Nobody fusses over dirt like the field crew at a horse race track. The process of mixing, screening, dragging, rolling, brushing, and wetting the dirt is endless. Before every race, the track surface is loosened with a harrow and then dragged smooth. The rocks that invariably pop up have to be collected. But turf, unlike dirt, has to be kept alive.

High maintenance and the cost it incurs have kept turf tracks something of a rarity in the United States and Canada, although in Western Europe they are more common than dirt tracks. This is due in part to the preference among European breeders to train their horses on turf, and the brief duration of the "meet" or racing season. While the turf meet season in the U.S. and Canada can be as long as six months, the

Horses racing on the Marshall course must cross the dirt track.



Main track is used for six months each year.

Both The Marshall and the Main, Kentucky bluegrass tracks, are 80 feet wide. The practice track is 120 feet wide.

The turf track racing season runs for six months, from May 24 to the end of October, which is just slightly shorter than the dirt track racing season. An average of 1½ races are run on the turf each day during racing season.

The practice track is not spared from the pounding. As many as 200 thoroughbreds can travel, often flat out, across it during the four days it is open each week of the season.

"Horsemen love to run their horses on turf," said Ron Aspden, superintendent of the race course. "The demand for the track is high."

Aspden, a 32-year-old Ontario native, has worked at Woodbine for ten years, the last four as superintendent. He grew up on a breeding farm in the area, where his family raised thoroughbred horses. While in college studying mathematics, Aspden took a job as a driver at Woodbine. After finishing school, he began to work at the track full-time.

It took six years of hands-on learning for Aspden to reach his position. He works closely with Bill Partridge, grounds supervisor, and a 35-man crew of drivers and laborers. Partridge, 30, is also an Ontario native. He began working at the track when he was 15 years old.

"My father-in-law was superintendent of the grandstands," said Partridge. "At the time I started, I was really young and just wanted to get out into the work force and make some money. I stayed—it's a really nice environment to work in—learned as I went along, and took the short course in turf management at Guelph University in Ontario."

Partridge's day at the track begins at 7:30 a.m. and usually ends by 5 p.m. He tries to work five or six days a week, but it is not uncommon for him to go straight through the week during the busiest periods in the racing season. "We sort of divide up the work," said Aspden.

There is plenty of work to divide, and although the pre-season preparation begins in March, two months before the first hoof hits the turf, it could be said that preparation for the upcoming racing season

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meet season of certain European facilities can be as short as two weeks, or even a few days. Shorter meet seasons translate into less maintenance and lower costs.

While there are several turf tracks in the U.S., such as Suffolk Downs in Massachusetts and Santa Anita in California, there are only two facilities that have turf tracks in Canada. Both of these, Woodbine and Fort Erie, are in Ontario, and are owned by the century-old Ontario Jockey Club. The organization owns and operates four horse racing facilities in Canada. Woodbine is the site of one of the country's most prestigious races, the \$750,000 Rothman International. As many as 10,000 fans visit the track during each day of racing season.

Woodbine has a total of four tracks, one

dirt and three turf. One of these turf tracks is used only for practice. Surrounded by the dirt track is a turf oval called the Main Track. On the outside of the dirt track is a J-shaped turf course called The Marshall, which begins beyond the exit chute of the dirt track's first corner, wraps around the backstretch, actually crosses the dirt track, and finishes on the frontstretch turf of the Main Track.

The configuration of The Marshall is unique, to say the least. Before a thoroughbred is allowed to race on the Marshall, it must qualify by running the track alone. If it is unable to cross the dirt section cleanly, then it is not permitted to race on the course. To help the horses prepare, a dirt section was recently added to the training track.

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begins at the end of the old one. After the final turf race is run in October, the turf, which during the season is cut to a height of six inches for the horses' footing, jockey safety, and aesthetic considerations, is trimmed to three or four inches. The turf is topdressed, using a mixture of one bucket of sand to two or three buckets of topsoil. The topdressing is fed through a shredder, and then dragged into the ground using a metal mat pulled behind a tractor.

The turf is then verticut with Olathe equipment, aerated to a depth of eight inches using either a core- or spoon-type aerator, and any remaining damages are repaired.

In March, the turf is aerated and verticut again. Reseeding, with a mixture of Baron and Nugget Kentucky bluegrass and ryegrass, is performed in the spring. The crew uses a Jacobsen drill seeder for the job. "Since the track is used so much, we also seed whenever we get the chance to do it," added Partridge.

Irrigation on all three tracks is controlled through 18-station, Rain Bird Control Boards. Sprinkler heads have been installed both on the outside and inside borders of the tracks and they are activated in groups of six; three on the outside, and three on the inside. All the watering is done at night.

"All of our irrigation is on timers," said Aspden. "All 87 heads on the Marshall are Rain Bird."

During the season, the practice track and the Main Track are watered for four minutes nightly. The Marshall is watered for 12 minutes. Aspden added that they also adjust the irrigation according to the weather. For example, he said, June and July had low rainfall, while August was fairly wet, and the system was adjusted accordingly.

The difference in watering requirements lies underneath the turf. For The Marshall, and a portion of the training track, it is sand and gravel over clay. For the older Main Track and most of the practice course, it is topsoil over clay. Partridge said that he doesn't worry about disease outbreaks due to night watering, because when the grass is healthy and growing it takes care of itself, and disease has little chance of getting a hold. However, they have used Scotts FFII to control snow mold outbreaks.

Watering is done accurately and carefully, to prevent the creation of soft spots which could throw a horse off its stride. Should a soft spot occur, the turf in the spot and all the wet topsoil or sand (depending on the track) are dug out completely. The hole is then filled with the required medium and sodded from on-site plots. Adequate drainage plays a substantial role in preventing these soft spots, as well as turf diseases.

"The Marshall has drainage lines at 35-foot intervals, running laterally around the track," said Aspden. "We do have to cancel



Bill Partridge (left) and Ron Aspden.

the turf race, if we get a lot of rain. The horses just damage the turf too much."

About eight years ago, Dave Dick, technical representative for O.M. Scott & Sons Company, began working with Woodbine maintenance officials to develop a fertilization and maintenance program. Dick, an Ontario native and former golf course superintendent of 12 years, had long been aware of the track, and decided to give them a call when he joined Scotts. He now enjoys working closely with both Partridge and Aspden.

"Over a period of time, we developed a fertilization and maintenance program based on soil tests," said Dick. He added that the tests done each year have shown the soil to be slightly alkaline and high in phosphorus. Partridge explained the fertilization program for the 1989 turf racing season, which with little exception was not different from that of the previous year.

"We put down about six pounds of nitrogen per 1,000 square feet on the older track, which has a topsoil base, with monthly applications of ProTurf Super Fairway Fertilizer, April through September," he said. "On the Marshall, which has a sand base, we also put down six pounds of nitrogen per 1,000 square feet, using a combination of ProTurf Super Fairway, Super Greens and High K fertilizers."

Partridge added that although the fertilization program is monthly, the crew will fertilize whenever it appears to be needed. "When the turf needs it, we'll also give it a little shot of urea," he said.

To keep the tracks' turf six inches high, they use a Woods 15-foot rotary mower. The tracks are mowed every three days; by the time one is finished, the next is ready to be mowed again. With each mowing, the pattern is alternated. If on one track they mowed from the outside to the inside, they'll start its next mowing from the inside and work to the outside. In this way, said Partridge, they avoid turf wear from tire marks. They also drag the turf with the mat when necessary, to lift matted-down areas.

To keep what Aspden called "a problem with thatch" from running away from them, they use a Brouwer turf vacuum to pick up the clippings every time they cut. As the season cools and there is less stress on the grass, the turf is mowed to a height of 4½ or five inches.

As if all this weren't enough for Aspden, Partridge, and their crew to worry about, it's important to remember that the tracks they topdress, aerate, verticut, irrigate, drain, fertilize, and cut are pounded and gouged almost daily by thoroughbreds. It would be like a golf course superintendent making sure that the greens are as smooth and even as a billiard table, and then welcoming a pack of motocross racers.

One of the solutions to the daily beating taken by the turf racing tracks at Woodbine has been the installation of an adjustable, portable fiberglass rail system. Because most of the races are run in about a 15-foot wide strip, and the tracks are 80 feet wide, moving the rails allows them to distribute the track wear evenly. Once the lane for the race has been determined, one of five that they use, it is laser-sighted for precision placement of the rail, which slides over goosenecks that are placed in the turf.

"We measure out our lane and mark it with a pin," said Partridge. "We place the laser there, which shoots a beam of light down the track to a beam receiver mounted on a tractor. We're accurate to 1/8 of an inch."

After every race, the crew goes out on the track to replace or fold down divots and pack the turf where the horses ran. The track is patched and then rolled. Turf tracks are rolled in the opposite direction of horse traffic to smooth out ridges and push down divots. If several races are run in a day, the crew waits for the evening to begin repair work.

"Once the turf starts to get worn down, we go out and spread seed [the same blend used in reseeding] mixed with soil," said Aspden.

Far from being content to simply lie back and watch the grass grow, Aspden and Partridge continue to pursue methods of improving turf track racing conditions at Woodbine. Aspden recently traveled to Santa Anita Race Track in Arcadia, CA, where he saw Netlon—plastic mixed with the sand under the turf. Netlon reportedly provides greater turf strength and stability for the horses. They are currently working on test plots using this method on one of the practice tracks.

"Sand has worked great on golf courses [under turf], but horses have a hard time getting stability on it," said Aspden. "If the track is wet, a lot of the horsemen will scratch their horses from the race. A lot of the handicappers won't bet if they came to see a turf race and it was canceled. They get disappointed."

In October the Woodbine turf track season will end, and Partridge, Aspden, and their crew will put the turf to bed for a few months. They'll concentrate solely on the dirt track until December, and in March they'll begin to hit the turf again.

For turf racing thoroughbreds, the season is short and the mesmerizing race is brief. Partridge and Aspden have no such luck, but their work seems to pass quickly. Turf track racing is full of illusions. 🐾