Patriot Field

STMA 2001 Baseball Field of the Year Award

Patriot Field of Putnam City West High School, Oklahoma City, OK, earned the STMA 2001 Baseball Field of the Year Award in the High School/Parks and Recreation Division.

Rick Newville joined the school's four-coach baseball staff in August 2000, transferring from Putnam City North. He teaches biology to sophomore and junior students as well as coaching.

The field care aspect of his role has been building for quite some time. The interest was sparked when Newville, and his friend Monte McCoy (now sports turf manager for the Oklahoma RedHawks Baseball Club) played college baseball at El Reno Junior College (now Redlands Community College). Newville moved on to complete his bachelors degree in science education at the University of Oklahoma and began teaching and coaching within his current school district in August 1994. He and McCoy coached American League baseball together in Norman, OK, then McCoy headed the program that earned the Beam Clay Diamond of the Year award for Oklahoma University.

Newville says, "My science background enables me to work with the concepts of field management and the hands-on labor turns those concepts into action. Seeing the impact of field maintenance on safety and playability got me hooked. And, working with students gives me the ability to use the field care aspect as another educational tool."

Patriot Field was constructed in 1969, following the opening of the high school. The soil profile is the native loamy clay. There's no crown on the field, but there is a slight run off from right to left field. Infiltration and percolation rates are generally adequate to handle the spring rainfall. There was only one rainout in the 2001 spring season. Initially the baseball outfield doubled as the auxiliary practice field for the football team. It's now dedicated to baseball–and a lot of it.

Used 10 months a year

Newville says, "Patriot Field is utilized 10 months out of the year. Tryouts for the school baseball teams are held in October, and the teams practice thereafter, weather permitting. Practices continue until the first games are played around the first of March. In 2001, from March 1 to mid-May, the field hosted the varsity, junior varsity, and freshman teams who combined for a total of 60 games, including one tournament. All the practices for the three teams were also held on the field. The field then saw a 2-week break from game, but played host as a batting practice site for smaller schools playing in their state tournaments.

"Summer League began on June 1, and Patriot Field served as the home site for three teams, and hosted a week of youth camps. From April 1 to the end of July, 70 games were played. This included two tournaments that put 30 games on the field within a 12-day period. The field got a much-needed rest from August 1 until October, when the preseason tryouts were held to start the cycle once again. So, over the 2000-2001 baseball season, Patriot Field hosted 130 games and three tournaments, and served as practice site for the multiple teams."

2000-2001 maintenance program

October 2000:
- Overseed common bermudagrass with perennial ryegrass blend.
- Outfield rate of 8 lbs./1000 square feet. Infield rate of 10 lbs./1000 square feet.
- Topdress with sand at rate of 1/8-inch.
- Begin mowing perennial ryegrass at 7/8-inch height .

November 2000:
- Fertilize with 21-7-14 at rate of 1/2-lb. N/1000 square feet.
- Mow as needed.

December 2000:
- Fertilize with 15-0-30 with 1 % iron.
- Apply potassium at rate of 1 lb./1000 square feet.
- Mow as needed.

January-February 2001:
- Reconstruct mound and home plate area.
- Remove 5 feet of sod along back lip.
- Roll other lip areas with 1-1/2-ton roller.
- Add 50 tons of clay to skinned areas.
- Add 3 tons of calcined clay to skinned area, drag to 1-1/2-inch depth.
- Mow as needed.

March 2001:
- Fertilize with 32-3-8 with 3 % iron, 25 % SCU (sulphur coated urea) at rate of 1/2 lb. of N/1000 square feet.
- Core aerate in two directions.
- Pre-germinate perennial ryegrass seed for spot application.
- Sand topdress newly seeded areas.
- Lower mowing height to 13/16-inch.
- Apply post-emergence herbicide spot treatments as needed following standard IPM practices.

April-May 2001:
- Core aerate in two directions.
- Fertilize with SCU at rate of 2 lb./1000 square feet.
- Lower mowing height to 1/2 inch.
- Apply post-emergence herbicide spot treatments as needed following standard IPM practices.

June 2001:
- Fertilize with 17-5-9 with 10 % sulphur at rate of 1/2-lb. N/1000 square feet.
- Slice aerate in two directions.
- Apply post-emergence herbicide spot treatments as needed following standard IPM practices.

July-August 2001:
- In July, apply pesticide as needed for grub control following standard IPM practices.
- Fertilize with 21-7-14 at rate of 1 lb. N/1000 square feet.
- Core aerate in one direction.

September 2001:
- Fertilize with 21-28-7 at rate of 1 lb. Phosphorus/1000 square feet.
- Core aerate in one direction.

Key field improvements, coupled with the aggressive maintenance program enabled Patriot Field to stand up to all this use. This program is put into action by the four coaches, one student assistant and help from the players for major projects and during tournaments.

Newville says, "Our student groundskeeper, Brian Rudy, is a great asset. He started with no field maintenance background, but has become proficient in all areas, including rebuilding the mound and home plate, dragging the skinned areas and lip control. Maintenance begins at 11:30 each morning and the field must be playable no later than 2:30 PM. That includes the entire mound, plate and skinned area preparation and the mowing. Each of the five of us tackles an area, generally performing the same tasks each day. Coaches Brian Aylor and Jim Taylor, along with myself, focused a majority of our attention on the skinned areas as most of the game is played on the skinned surface.

"Aesthetically, the ryegrass patterns always catch peoples attention, but we really pride ourselves on the playability of the skinned area. All of us join in the post-game clean up and in tarping. We all work the tournaments to insure top conditions and keep things on schedule."

An in-ground irrigation system was installed in the outfield in 1998. The infield had only a quick coupler to which an impact head could be attached. The hot, dry summer, limited irrigation resources, and a minimal mowing program left the common bermudagrass field struggling. Shortly after Newville came on board, he extended that in-ground system to the infield. He trenched in piping and tapped into two existing valves located directly behind the infield skinned area. He added eight heads in the infield, four attached to the left outfield irrigation section and four attached to the right outfield irrigation section. While irrigating the outfield and infield sections together is not the ideal situation, it does provide a more workable irrigation source to combat the regions hot, dry summer conditions.

The next project was reconstruction in front of the pitcher's mound to remove a hump that had developed over time and to bring the slope back to the precise regulation dimensions.

Then it was on to lip removal. Newville says, "The back edge of our infield was sitting at 95 feet. We took 5 feet off the sod to extend the skinned area, cut out more skinned area around first and third, put in the cutouts for the umpire boxes, and created walkways from the dugout to home plate area."

By late September, Newville was ready to upgrade the common bermudagrass by overseeding with a blend of perennial ryegrasses. He says, "This is when the adversity really kicked in. It's the single word that best describes the conditions our staff had to overcome to provide a safe, playable, and aesthetically pleasing field. And those were our three goals, in that order of importance."

The field was core aerated. Then the outfield was overseeded at the rate of 8 lbs. per thousand square feet, and the infield and wings at the 10-lb. rate. This was followed by a topdressing with sand at the rate of 1/8-in. October brought almost 12 in. of rain, beginning right after the perennial ryegrass had germinated.

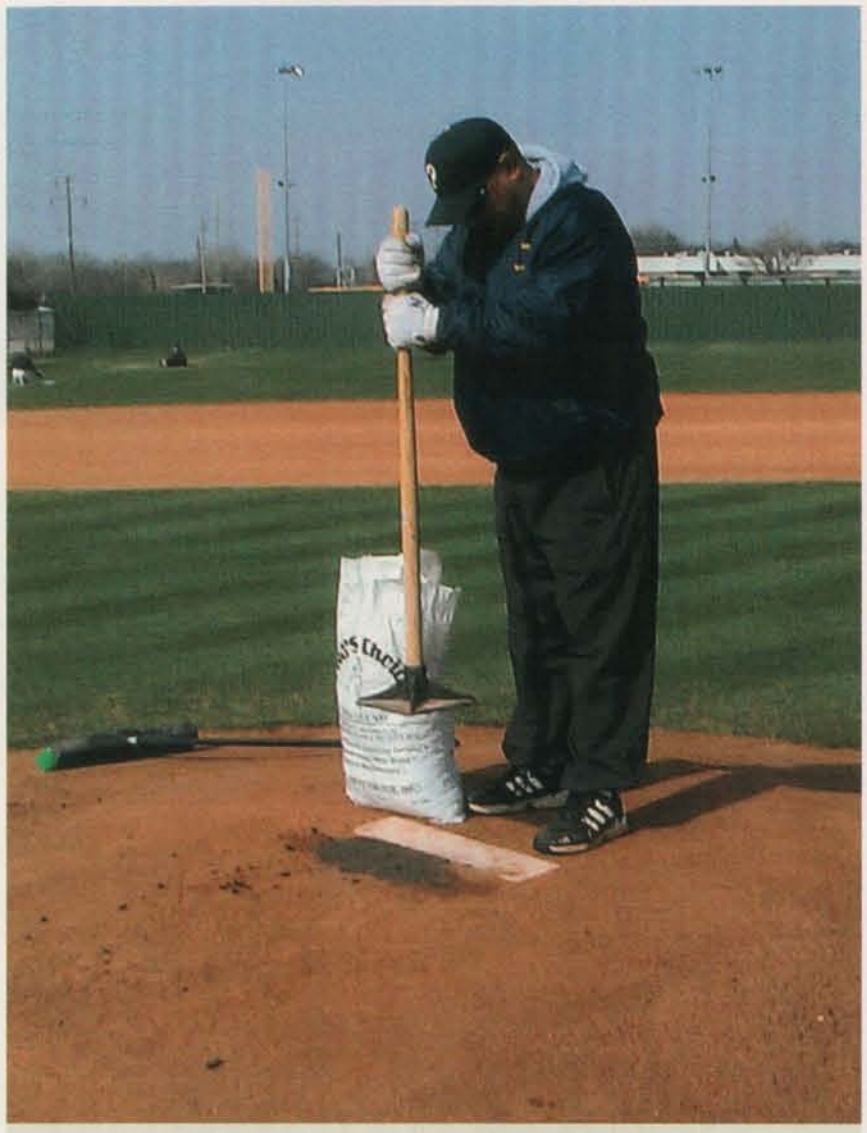
Ice storm cometh

The first ice storm hit right at the end of Christmas break. Additional ice storms followed in January. Most areas of the field were covered with about 1 in. of ice, but in other sections the ice build up reached 3 in. Newville says, "We had to chisel ice away from the irrigation heads so we could use the irrigation system to speed up melt down whenever temperatures rose above freezing. In the shaded areas, such as in front of the dugouts, the ice lasted so long we had to put our student groundskeeper to work chiseling it away."

This one-two punch knocked out some of the perennial ryegrass necessitating spot applications of pre-germinated seed in March.

By February 2001 weather conditions had improved enough to upgrade the skinned area clay. At least 50 tons were added and tilled in to bond with the existing material. This was topped by 3 tons of calcined clay, the area reworked and then rolled with an asphalt roller.

In the meantime, spot treatment was used to battle compaction. Rudy tackled this assignment whenever he could fit in a few minutes.



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He used a half-inch drill bit on a power drill to open up the areas that were too hard for standard aeration. The openings were filled with the same coarse, washed sand used in the topdressing program.

This process, combined with spot irrigation, brought these sections into good enough condition for working with the walk-behind aerators. These machines also are used for the wings and the infield while a tractor mounted unit is used for the combination slice and core of the outfield. A pull-behind unit is rented for slicing only of the outfield.

Newville says, "Our biggest surprise came on a Saturday morning in May. Heavy rains overnight brought us in early to work the skinned area. We discovered a drunk driver had crossed through two cyclone fences and put his truck on the third base wing, then managed to drive away. We were left with fences that needed repair, tire tracks, a few oil spots and the one of the metal letters of truck maker's name."

Newville approached the Booster Club with a proposal to enter into and fund a lease purchase agreement on a 68-in. triplex reel mower for the outfield and a 25-in. walk-behind reel mower for the infield. He says, "This was a pretty big step for our Booster Club. I showed them the improved turf conditions a similar combination had helped us achieve at Putnam North. That information, coupled with the positive initial changes the aggressive maintenance program was producing, motivated them to step up to the plate. We started mowing with the triplex in early November 2000 and added the walk-behind in January 2001. We can now mow every day to get the consistency and quality we're after."

The reel mowers also help with the transition back to bermudagrass. Mowing height is gradually lowered to 5/8-in. This combined with core aeration, the regular fertilization program, and Mother Nature's heat phase out the ryegrass as the aggressive common bermudagrass bounces back.

Newville notes that the school district, under the coordination of Dee Wilson, Putnam City District athletic field manager, provides a finite amount of fertilizer, seed, conditioner, and the field marking chalk. The third source of materials comes through an arrangement worked out with Jeff Foster, David Bonds, and Larry Lindsay of Estes Inc., a local distributor. The company provides additional seed, fertilizer, conditioners, herbicides, fungicides, and pesticides, along with consultation services as needed, in exchange for an advertising sign posted at the field.

Also over the past 2 years additional improvements have been made. Lights have been installed, a permanent outfield fence was erected, and new bleachers have been added. Future projects include: adding a warning track to the wing areas, moving existing bullpens to the outfield, and installing larger dugouts.

Newville has future projects on his mind as well. He'll continue for the third season as a member of the field maintenance staff for Oklahoma City's AAA Stadium, Southwestern Bell Bricktown Ballpark. And, he'll tackle a new field and new challenge moving from the baseball coaching staff to serve as head softball coach.

He says "After working with the RedHawks, I've been determined to bring that same level of safety and playability to our fields. My goal is to provide the safest facility for everyone that comes in to play. Monte's been an excellent resource to help make that happen. I've also just come back from my second STMA Conference. The networking is excellent. It's an unbelievable resource to make the connections so you can just call someone up to exchange ideas and get information. It's an ongoing education process." **ST**