Grassroots field



BY DR. GRADY MILLER Professor, North Carolina State University

Questions?
Send them to
Grady Miller at
North Carolina State
University, Box 7620,
Raleigh, NC 27695-7620,
or email
grady_miller@ncsu.edu

Or, send your question to David Minner at Iowa State University, 106 Horticulture Hall, Ames, IA 50011 or email dminner@iastate.edu.

I am looking for directions on building a
"grassroots" soccer field. We have 9 acres,
cleared, relatively flat land. The topsoil
was stripped off several years ago but still
seems to be sandy soil. It currently supports a lot of weed growth. We do not

have "deep pockets." I talked to the City and they have no budget, end of discussion. Our most immediate questions are: do I strip the existing growth to get all the rocks? Can we rely on a local seed salesperson to determine the best product and soil preparation needs? And is it a wasted effort without engineered drainage, professional irrigation and so on?

North Carolina

Your question is based on a common theme I hear. There is a need for more community-based fields that can be constructed and maintained on a minimal budget. I am glad you are moving forward with developing the area for fields. Try to get as many potential field users involved up front as possible, as you can often use the diversity of the group to your advantage. All those youngsters have parents; many may work for companies that can provide goods, services, or money toward the construction or operation of a community facility.

Local businesses and civic groups are sometimes a happy to contribute, but do not push too hard. So many companies get bombarded with donation requests that most have developed pretty firm policies on giving sponsorships, money, or goods.

I know a little how they feel. Most years I get four or five requests for our University turf students to come out and build, maintain, or renovate fields as a "special project." Some of our student Clubs work on community service projects, but we get so many requests for turf work, that it is just impossible for students to even participate in most of the local projects.

You do have some great questions related to your project. While it would seem stripping off the surface to remove rocks would work, my experiences is that it usually does not work well. The problem is that if there are rocks on the surface, there is likely to be rocks within the soil profile. It is kind of like the layers of an onion. You remove one layer of rocks only to find another.

What usually works better is to use something like a Harley Rake or Rotadairon* cultivar to remove the rocks in the top several inches. The Harley Rake requires a return trip to remove the rocks; whereas the Rotadairon will push most rocks down in the profile so they are not as much a nuisance. The benefit of using both these land preparation methods is that most of the surface debris and rocks are removed and you are left with a nice soil surface for planting.

If there is a lot of vegetation and you cannot swing something like a Rotadairon, then my other suggestion would be to spray the area with glyphosate to kill as much vegetation as possible and then till the area as best you can. If a large disk is used, getting the area level and smooth may be more of a challenge. Deep tillage will allow the turf to easily grow deep roots during its establishment. This will pay huge dividends in the long term.

I believe that most local turf product salespeople should be knowledgeable about what works well in the area. Most will not steer you wrong because they want you as a repeat customer. If you have any questions related to their products or their advice, check with your local county extension office for an unbiased opinion.

I do not believe that every project has to be engineered and have the irrigation system designed by a high-priced professional.

Irrigation is nice for establishment and during drought, but for a "grassroots field" you can often get by without one. Just hope for good wet weather during turf establishment. That is when you are taking the biggest risks by not having irrigation. You can fabricate temporary, above ground irrigation to get past the establishment period if more assurance is needed.

If you do decide to install an in-ground irrigation system, I would advise you to seek help from someone knowledgeable about athletic field irrigation systems. Since all soccer fields have a similar shape and roughly the same dimensions, the major irrigation companies have good "cookie cutter" designs and materials lists readily available. A good installer can work with these designs and prevent some of the aggravation that can result from a poorly installed system.

Remember that soil preparation is very important for establishment and long-term success. Cut too many corners on soil preparation and the field is not going to perform very well. Also, surface flow of water is very important if the field is built with a heavy (clay) soil due to its inherent low water infiltration rate. So find someone with knowledge of surveying equipment and slopes to help with the grading. And it is never too early to start thinking about management of the field. The best field in the world will not perform very well for very long if not properly maintained.

*Other manufacturers may have similar products. Specific product names were used because this type of equipment is commonly recognized by these names and is not meant to constitute an endorsement of these products over others.