

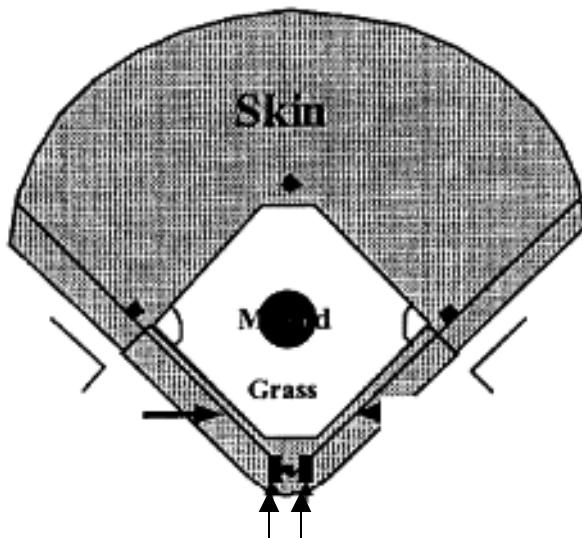
Send us Your Dirt

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The following article was initiated to achieve a better understanding of baseball field skins in Iowa. We will test any field in the United States and add your information to the database. You must complete the attached survey and send it along with your skin sample in order to receive a soil test report. There is no charge for this test. Usually it costs \$50-80.

This article contains general information on the non-grass or dirt portions of baseball and softball fields. Follow the instructions at the end of the article to send samples of your infield dirt for a free analysis. Please fill out the enclosed survey with your sample and let us know the good and bad points of your infield material.

Non-grass areas of baseball and softball fields are commonly referred to as “dirt,” “skin,” or “base pads.” In horticultural circles, we prefer the term soil when discussing growing media. The non-grass running and fielding area may contain soil, but it is clearly a unique media that has no association with plant growth factors. With this disclaimer, please join me in a discussion about the dirt on your ball field. The figure below identifies specific areas that require different types of dirt material.



Most of the complaints I receive about baseball/softball fields are directed at the dirt not the grass. The best ball field managers are known for their dirt management skills and less for their turf management skills.

“Ag lime,” short for agricultural limestone, has gained popularity in the midwest because of its low cost, local availability and rapid internal drainage. The lighter colored or white ag lime is composed of calcium carbonate while the darker colored or red material is high in magnesium. Ag lime drains rapidly and reduces the chance for rained out games. Because of the high drainage capacity, it also requires watering to prevent excessive hardness. When dry, ag lime can become so hard that nail drags and other ripping equipment will not sufficiently penetrate the surface. Ag lime has been particularly successful to prevent rainouts on fields that are not routinely tarped. A watering system specifically designated for the skin area is strongly suggested to assist with grooming practices. Ag lime is not suitable for pitching mound or batter box areas. Specialized clays such as Mound Master and Flex-a-clay can be used in these high-traffic areas.

Native soils in Iowa are variable and contain different amounts of sand, silt, and clay. Soils with a high sand content (greater than 60%) drain faster. Most soils contain 2 to 6 percent organic matter. Clay and organic matter are responsible for increased water holding capacity and slower drainage. Soils that are good for plant growth are generally inadequate for baseball skin.

It is important to first identify what your players perceive as a problem with the field. A change in maintenance practices or new equipment may be more important than changing your infield mix. Skins that are too hard cause high hops and sliding injuries. Adding sand, calcined clay and water will soften the surface and allow better penetration of grooming equipment. Tilling and solid coring will increase pore space and reduce hardness. Skins that are too loose result in low ball bounce, poor footing, and rapid absorption of water. Adding clay and commercial stabilizers will make the skin more firm. Rolling can firm up the skin when clay and moisture content are sufficient.

If you are satisfied with your dirt, a test will let you know what to select for future projects. If you are unsatisfied, the test results will help guide your selection of amendments to improve your dirt.

Several of the ISTMA members have asked for dirt recommendations on baseball/softball fields. After viewing several of the so-called “ag lime” fields, it was clear that each local source of ag lime appeared to have a different arrangement of particle size. Please take a few minutes to sample your fields, good or bad, so that we can get a better handle on what materials are suitable for different infield dirt situations.

Return the following information with each sample!

Sample collection and survey information:

1. Collect samples from the top two inches of a specific area after the field has been groomed and is ready for play. If you want a deeper profile tested then submit a separate sample from the zone that is between the 2-inch and 4-inch depth. Collect about a quart of soil from three representative areas of the skin infield and mix them together. Send a quart of the mixed material for testing with your completed survey.
2. Double bag each sample in one-gallon zip lock bags and write the sample I.D. on the bag with a permanent marker. Secure the bagged samples in a box or container with newspaper or packing material. **SEND TO: D.D.MINNER C/O SOIL TEST, IOWA STATE UNIVERSITY, HORTICULTURE DEPT, AMES, IA 50011.**

3. Name _____

Company _____

Address _____

City/state/zip _____

4. Sample I.D. Name (i.e. Field #1 skin) _____

5. Field condition: good acceptable poor

6. Which best describes your field? too hard just right too loose/soft

7. Rain outs occur: frequently seldom never

8. Rate your skin infield on a scale of 1 to 10, 10=best and 1= worst.

Field rating under ideal conditions ____, normal conditions ____, worst conditions ____.

9. Field type: softball baseball

10. Dirt type: native soil ag lime sand/soil other:

11. Level of play: little league parks&rec high school college pro

12. What was the name and supplier of the original skin mix?

13. Identify materials or conditioners that have been added to the field?

14. Other comments: