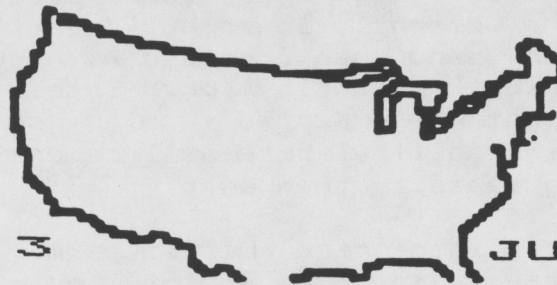


# TURFCOMMS



V. 6, I. 3

JUNE 19, '91

**PURPOSE:** To pass on what we learn willingly and happily to others in the profession so as to improve turf conditions around the country.

**PRESS RELEASE ! - PRESS RELEASE ! - PRESS RELEASE !**

Grayson County College has decided not to renew Dr. Douglas T. Hawes's contract "due to a continuing decrease in enrollment in the turfgrass program." Dr. Hawes will return to full time consulting.

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**RICE HULL COMPOST AS A SUBSTITUTE FOR PEAT MOSS:** In the South Central U.S. composted rice hulls are commonly used in place of peat moss as the organic matter in greens built to USGA specifications. Rice hull compost is more economical to use than peat in that portion of the country. As an organic matter source it differs in several regards from the conventional peat.

Before preceding further with this article I should confess to something that may reveal a bias. I have written and talked to Mr. McMasters. Mr. McMasters in response to a letter I wrote put together a booklet and sent me an autographed copy. McMasters claims to have sold his product in 12 states in the South Central U. S. for use on over 200 golf courses and in over 3000 greens. He appears to be the principal U.S. producer and seller of rice hull compost.

Rice hull compost differs from peat moss in that it has on the positive side a longer life in the soil probably due to a considerably higher silicon content than peat. The longer life means that there is less food for a developing microbial population. A good reason to use Milorganite or a Ringer-type product along with it.

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**TURFCOMMS is published at unpredictable intervals by the editor and publisher:**

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The extra silicon probably gives the individual particles of organic matter a greater stiffness than peat. This factor probably explains the slightly lower bulk density obtained from rice hull mixes with sand when compared with peat and the same sand. The lower bulk density correlates with a higher permeability. As might be expected from an organic matter that imparts a higher permeability rice hull compost has a slightly lower moisture holding capacity than peat.

This latter characteristic of rice hull mixes may be looked at as a negative or positive aspect. In St. Louis and other humid southern areas where it is liked by many superintendents good drainage and aeration are more important than water holding capacity. In fact why use the USGA specifications if good drainage and aeration are not what you desire.

The lower cation exchange capacity of the rice hulls is a definite negative aspect from my point of view. But, it can be lived with. Use of large amounts of slow release nitrogen at establishment, plus a minor element source and a coated potassium product should be considered. For minor element source consider using Milorganite or O.M. Scotts ProTurf STEP.

A visit recently to a Houston area golf course that had rebuilt greens brought again to mind the lower cation exchange capacity of any new sand/organic soil mixes. The first few years whether rice hulls or peat are used the greens do not hold nutrients well and require large amounts of fertilizer until organic matter levels rise in the surface inches of the mixes. This golf course also had one other problem of brief duration. A fairy ring-like problem developed, perhaps - ? - from rice hulls that had not been fully composted.

Peat moss or rice hull compost for organic matter that is the question? If you're in the rice hull compost region don't be afraid to give it a try.

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"BLACK LAYER: NATURE'S REVENGE?" is the title of a 1987 editorial on this subject which I thought very appropriate after my last experience with this soil condition. There is a tendency to blame black layer occurrence on sand mixes and sand topdressing.

I would say it would make a lot more sense to blame its occurrence on a lack of sand topdressing. We have to learn how to manage grass on a sand mix that is designed to have a percolation rate of eight to 20 inches per hour. On that type of mix we can not allow a layer of organic matter and silt to accumulate. To do so is invite disaster now or in the near future. The near future may be one or 15 years away. Organic layers with silt in them from natural dust become a fine textured material giving a perched water table over the well drained sand.

The natural dust may come in thru the irrigation system (muddy water) or from the air or both.

I have seen black layer hit hard when the water quality changed to that of a water much higher in sodium. I have a tendency to look at sodium levels in the irrigation water after that event. However, it is seldom the prime cause although often a contributor. Sodium can cause an otherwise stable, porous organic layer to clog up nicely. Nicely, if you're selling aerification equipment. If the organic layer or a silt layer is not there than sodium by itself will not cause black layer.

All the researchers and most of the turf managers appear to be willing to admit that a soil or soil layer that stays waterlogged too long is going to develop black layer. I find blaming it on the presence of algae and/or sulphur applications hard to agree with although I suppose it is not unfeasible for algae to produce the organic matter that will give one a waterlogged layer. I often find the worse cases associated with a lush or formerly lush turf.

I seldom find dry spots on greens where black layer is a constant problem. But, I have found lots of black layer in the low, poorly drained or over watered areas in greens. I do not generally find black layer associated with maintenance programs that combine light frequent topdressing and low nitrogen levels. However, one may be on that type of program and have problems because a predecessor was not; or a dust storm left a layer across all or a portion of your greens.

The cure? Aerify, fill holes back up with sand, and dry the turf out. A difficult thing to do in June, July or early August when managing bentgrass greens which have a root system destroyed by anaerobic conditions not too far below the surface.

Know and avoid the causes of black layer so that you don't have to do the above impossible (improbable) act of management.

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TEXAS TURFGRASS CONFERENCE DEC. 16-19, '90: Dr. David Hall told us one way to tell the difference between yellow and purple nutsedge was the taste test. Yellow "nuts" are sweet and purple are bitter. If you would like more help on identification of weeds in the deep South send a request to: Dr. David Hall, Univ. of Florida, 322 IFAS, Gainesville, FL 32611 for order forms the Weed ID Guide produced by the Southern Weed Society, or Turfgrass Weeds of the Southeast, or Weeds in Florida and Weeds in Florida II.

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YARD WASTE BANNED FROM LANDFILLS is a second story in the above issue of Yard & Garden. Landscapers and golf courses in the future are going to have to pick up the debris and compost it. Composting is the answer; whether you use the hot or the cold method is up to you. Use them both if you wish; but your years of having grass clippings, leaves and tree limbs hauled to a landfill are coming rapidly to a close.

With the hot composting you can take clippings, tree leaves and limbs and convert them into a peat moss substitute. You'll need to run your tree limbs thru a shredder first. This is the most written about method of composting and it requires more room and is more apt to create an odor problem than the cold composting. But it does have the advantage, if properly done, of creating a humus like material relatively free of live weed seeds and disease spores.

With cold composting you can take old sod, soil and the above debris and produce from them a high organic potting or planting soil. Done this way the amount of space required is less and the odor problem should be minimal. However, weed seed will remain very much alive in the end product unless you fumigate it.

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BLOWER BANS KICK UP DUST --- AND NOT JUST IN CALIFORNIA is the title of a April/May YARD & GARDEN article. According to the article several communities have banned these big and little blowers of debris. Two reasons are given in the article: dust and noise. Their use on a golf course has never bothered me but it gets my blood pressure up to see a landscaper blowing yard debris into the street. In addition to being restricted in many California communities; communities in Florida, Illinois and New York are considering restrictions.

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