## Pros and Cons of Rolled or Palletized Sod

By ROBERT HAWKINS

Robert Hawkins Landscaping Germantown, Maryland

WHEN discussing the advantages and disadvantages of rolled sod versus palletized sod, you must consider how the sod is marketed and

First, you have the retail market in which a business produces and harvests sod and sells it in the field loaded or delivered. The second category is the business that either produces or buys sod from a producer and harvests, loads, transports and installs practically all of it to builders, developers, home owners, etc. Make no mistake about it, this is how the largest volume of sod acreage is sold.

If I were the first category or the retail market, I too, would use mechanized harvesting equipment and palletize my sod for the simple reason that it is easier to load and account for your sod, such as 55 square yards per pallet, etc.

But, I install most of my sod and the reasons why I prefer manually rolled sod are as follows:

1. Convenience—If I have a small crew of men, I can send a few trucks to the sod field in the morning, cut, roll, and load these trucks, take them to the job with these same men and install the sod that same day.

If I have a large enough crew of men, I can have one crew cutting, rolling, and loading sod in the field all day, another crew installing the sod on the job all day, and trucks going back and forth delivering the sod. Either method is convenient in that it is easily controlled.

2. Time saved—Time is money, and we all try to save time. I will concede that mechanized harvesting and palletizing of sod is as fast as a small crew of four or five men who manually roll and load sod. But there are sod businesses that cut, roll and load manually up to 2 and 3 acres per day! There is no way this can be done with a palletizing operation feasibly.

In addition, we roll our balls of sod 1½ to 2 square yards per ball whereas, palletizing, the most in one section of sod is one square yard. Now, this doesn't have much bearing on the time saved in the field. But when you are installing sod, time is saved. It is here where I find the biggest disadvantage of palletized sod.

When you lay sod off the truck of manually rolled sod, you simply pull alongside the area to be laid, and the crew simply takes a roll off the truck, lays it down and goes back for another. Each time a man lays a roll of sod he is putting down 1½ to 2 square yards. With palletized sod, it would only be ½ to 1 square yard. You can readily see that it would take twice as many trips to the truck for a section of sod and twice as long to lay a load.

Don't get me wrong, I am not talking about slapping down the sod any way at all, but doing a neat job, with square ends.

If you use a fork lift to spot your pallets when laying palletized sod, you often run over finished grade causing compaction and tracks that must be raked out. Also, you must lay sod all around the pallet. When it is empty, you have an uneven hole that must be patched in. This may not sound like much of a problem, but consider doing this for, say, 100 pallets per day and you will realize this is a lot of time lost. Another problem is gathering those 100 pallets at the end of the day and loading them on a truck to use again.

There are those that will argue that the smaller sections of palletized sod are lighter and, therefore, a man can handle them faster. This is not true because we generally cut our sod thinner when handled manually and, therefore, two square yards rolled is no heavier than a one square yard section on pallets.

Time is also saved in the transportation of manually rolled sod. A 2 or 2½-ton truck can carry approximately 6 pallets of sod, or about 330 square yards. You can carry anywhere from 400 to 600 square yards

Palletized Sod



Rolled Sod



## 2460A Stump Cutter...Big Machine with Big Reach

Removes large stumps in minutes ... without repositioning

Vermeer's big 65 hp 2460A Stump Cutter means fast, easy, safe stump removal . . . it means you save thousands of dollars annually. Its high-speed cutting wheel moves in, out, across to chew out big stumps in minutes . . . without repositioning the tow vehicle. And "The Diggin' Dutchman's" new swing tongue hydraulically telescopes and swings, left and right,to finish off largest stumps in hard to reach spots. Let us sink our teeth into your stump problems. Write "The Diggin' Dutchman" for information and complete literature.



Another Stump Cutter From . . .

## THE DIGGIN' DUTCHMAN

VERMEER TREE EQUIPMENT DIVISION 7207 Washington \* Pella, Iowa 50219





... and it's easy to maneuver! Digs 24" below the ground, up to 72" wide. Straight across cutting movement gives strict control next to streets, curbs, sidewalks, etc. Low silhouette design lets you operate easily in tight spots, under low objects.

For More Details Circle (119) on Reply Card

on the same truck depending on soil conditions of the sod.

As an example, it would take about 15 loads on a 2-ton truck to transport an acre of sod, but you could transport an acre of manually loaded and rolled sod on about 10 loads, a 33% savings in transportation costs alone!

3. Equipment Investment—In order to have a mechanized and palletized operation, you must have a sod harvester, 2 fork lifts and a very good supply of pallets with an initial investment of \$30,000 or \$40,000 compared to a manually rolled operation consisting of a sodcutter with an investment of \$1,500 or \$2,000.

If you deliver sod to retail stores, you must have boom trucks to unload the pallets of sod at a cost of \$20,000 to \$40,000 compared to a truck transporting manually rolled sod at a cost of \$5,000 to \$8,000.

Pallets are a very costly part of the palletizing operation. They cost from \$2.00 to \$4.00 each and can only be used 3 or 4 times. They are often broken and lost. Figuring in detail the cost plus the time spent on transporting, loading, moving pallets, etc., you would find that pallets cost 3 or 4 cents per square yard of soil. You do not have this cost in manually rolled sod.

The time saved in installation of sod, the convenience and the equipment costs cannot be equalled by the machanized harvesting and palletizing methods as they exist today. This is the reason that the vast

majority of sod is manually rolled. I am a firm believer in mechanization and I should hope that in the very near future we can develop a system and related equipment. The labor situation is so critical today in our industry that in the next 5 years it will be absolutely imperative to cut, roll, load and install sod with machinery, because there will be no men available to do it manually.

## DDT Degrades In Lakes Faster Than In Soil

DDT is much less persistent in most lake sediments than it is in soils on land, according to two University of Wisconsin water chemists.

"While DTT in terrestial soils remains for many years, in lake sediments without oxygen much of the pesticide is degraded within weeks," said Ralph C. O'Connor. "This does not mean DDT in lakes is not dangerous, for it is uncertain how much is picked up by aquatic organisms before reaching the sediments."

O'Connor, a water chemistry graduate student working with Prof. David Armstrong, announced the findings at the recent 15th Conference on Great Lakes Research. The conference, which has attracted more than 600 scientists from Canada and the United States, is sponsored by the International Association for Great Lakes Research.

The two scientists investigated the rate and extent of DDT degredation in sediments from Lake Michigan's

Green Bay and three other Wisconsin lakes.

"In sediments without oxygen there are about 20 types of common bacteria able to degrade DDT," O'Connor said. "In our laboratory tests, at least 25 percent of the DDT was degraded within two weeks, and more than half degraded within two months."

The actual amounts degraded are probably even greater, he said, but since only these amounts of the breakdown product were recovered, they can be considered the minimum degraded. The fate of much of the DDT not recovered still is uncertain.

Many lake sediments are of the anerobic (without oxygen) type, particularly those found where streams empty into a lake, he noted.

Another significant difference between the degredation process in lake sediments and terrestial soils is that the breakdown product, DDD, is often less dangerous.

"While DDD is still toxic, it does not have the same long-term effects as some of the other metabolites," he said. "For example, it is not involved in reproductive failures like the egg shell thinning caused by DDE."

This study, funded by the UW Sea Grant Program, is the first quantitative measurement of DDT degredation in anerobic lake sediments.

"Until now, sediments have often been ignored in examining the fate of DDT in the environment," O'Connor pointed out. "These results, however, indicate that sediments are important and must be considered in future research."