

Designed for the
Vegetation Care Industry
New Products . . .

DROP DEAD



NO SOONER SAID THAN DONE... 

with PENICK MALATHION FORMULATIONS

Penick offers a comprehensive variety of formulations for the control of mosquitos, including resistant strains and disease-bearing species, small flying insects, mealybugs, aphids and other turf pests. Combining high killing power with very low mammalian

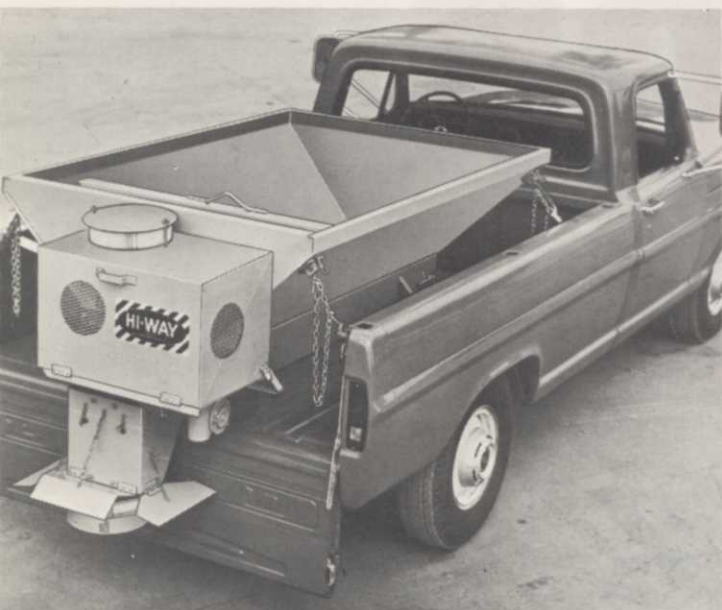
toxicity, these stable, low-odor pesticides are quick-acting and can be stored for extended periods. They're economical, too. Malathion's unique "reach-out" capability is just one economy factor. We can tell you about a number of others. Just ask us.

PENICK
S. B. PENICK & COMPANY
100 CHURCH ST., NEW YORK, N. Y. 10008
735 WEST DIVISION ST., CHICAGO, ILL. 60610
4161 BECK AVENUE, ST. LOUIS, MO. 63116

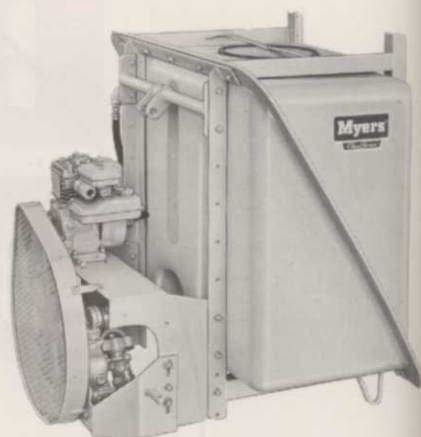
*Farm Chemicals &
Insecticides Division*

New Products . . .

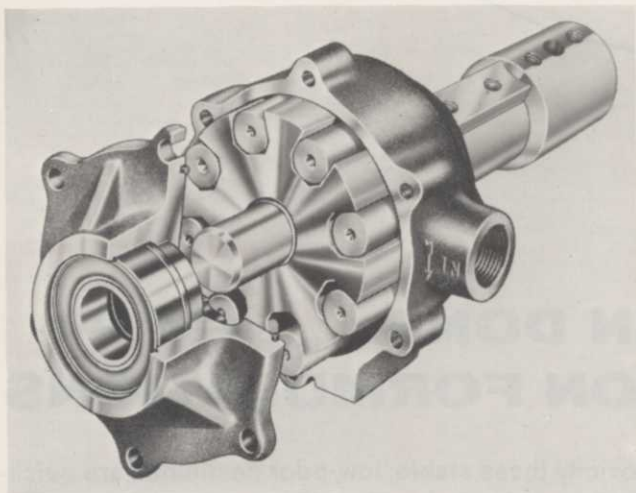
Designed for the Vegetation Care Industry



Self-contained, self-powered material spreader suitable for use on all light-duty trucks is announced by the HI-WAY Division of Highway Equipment Company, 616 "D" Ave., N.W., Cedar Rapids, Iowa 52405. Utility unit converts any truck into a "spreader" on a moment's notice.



New engine powered model has been added to line of GlasStran (fiberglass) Tractor-Mounted Power Sprayers by The F. E. Myers & Bro. Co., Ashland, Ohio. The 100ETM, is a versatile, lightweight unit with 6 or 2½ hp engines. Capacities are 3 gallons per minute respectively. Pressures are adjustable from 20 to 500 psi. Designed for mounting on 3-pt. hitch tractor, the sprayer can also be used as a skid type unit on a truck, trailer, or golf utility wagon. Optional booms and high pressure spray guns are available.



New 8-roller sprayer pump for high performance farm spraying has been announced by Hypro, Inc., 381 Fifth Avenue N.W., St. Paul, Minn. 55112. Special scoopless-rotor design reduces liquid by-pass problems and results in more liquid delivery at higher speeds and pressures. The pump, Series 7560C, delivers up to 18 gallons per minute, develops pressures up to 300 lbs. with 4½ horsepower, designed for direct drive by tractor power take-off. Can also be used with belt and pulley or gear head drive.

Baker Equipment Manufacturing Company, 1710 High Point Avenue, Richmond, Virginia 23230, now offers the M-45 Articulating Aerial Tower with 50-foot working height. Standard unit is equipped with Baker's patented Spira-Matic rotation system and fiberglass lower boom insert. Four hydraulic self-locking "A" frame outriggers assure extra stability. Upper boom and basket are both fiberglass. Handy side entrance with steps offers easy access to the truck bed, between the pedestal and truck cab. The unit is hydraulically operated and features two sets of controls. One set at basket and the other at rear of truck, mounted on the pedestal.



Even when it rains, it weeds

PARAQUAT—the chemical hoe—won't quit working when the weather turns wet. It's rain-fast—absorbed into plant tissues so quickly you'll get results even if it pours in a few hours after application.

PARAQUAT is a non-selective contact herbicide that kills most annual weeds and knocks down many perennials. Usually, you get effective control within three to five days (under favorable conditions, you may see browning within 1 day).

Most contact herbicides begin by killing surface cells, then work into the plant. Rain or watering can wash off the active material. Not so with PARAQUAT. It is absorbed into plant tissues, where it disrupts the photosynthesis process. Growth and life processes are affected as soon as PARAQUAT gets into tissues. Leaves and stems begin to wither and die.

Fast action isn't the only thing going for PARAQUAT. It doesn't leave any messy, sticky residues. No objectionable odor. No fire hazard. And PARAQUAT is compatible with most recommended residual herbicides if you want longer-lasting results.

PARAQUAT is economical, too. Just a little withers up a lot of weeds. Use 1 to 2 quarts per acre in 50-

100 gallons of water (combine with ORTHO X-77 Spreader or similar non-ionic spreader for maximum coverage and results).

For weeds on roadsides, rights-of-way, fence-lines, storage yards—use PARAQUAT the chemical hoe.



CHEVRON CHEMICAL COMPANY
ORTHO DIVISION
San Francisco, California 94120
Part of the great group of Chevron companies



PARAQUAT



Officers and directors of the National Arborist Association at the NAA winter meeting at Tampa, Fla.: Left to right (seated), Edward C. Shearer, Farrens Tree Surgeons, Jacksonville, Fla., first vice-president; Kenneth P. Soergel, Kenneth P. Soergel & Associates, Gibsonsia, Pa., president; Paul R. Walgren, Jr., Walgren Tree Experts, Hamden, Conn., second vice-president; (standing), Harry A. Morrison, Wilmette, Ill., retiring president; Glenn Burns, Karl Kummerling & Associates, Canton, O., director; William P. Lanphaer III, Forest City Tree Protection Co., Cleveland, O., treasurer; William A. Rae, Frost & Higgins Co., Burlington, Mass., secretary, and Riley R. Stevens, Stevens Tree Surgery, Portland, Ore., director.



James W. Polk

Arborists Change Membership Rules At Winter Meeting Held At Tampa

Arborists no longer need to be members of the International Shade Tree Conference in order to join the National Arborist Association. This change was made during the regular winter meeting of the national group. Meeting at Tampa, Fla., tree care operators also set up two new membership categories. The board of directors may now approve associate memberships for organizations who supply or service tree care companies. Another category was established for privileged members. The board, by a two-thirds vote may extend this type membership to any retired NAA member of the arboriculture profession.

Another noteworthy change in by-laws of the group, according to Clarke W. Davis, NAA executive secretary, was the decision to henceforth hold their annual meeting each February, rather

than during the regular August meeting of the ISTC.

In the board session, previous mail approval for 21 new member firms was reaffirmed. Board members approved a final draft for their lightning protection standard, established a new committee to prepare a statistic questionnaire, and approved a motion enabling the group's executive committee to set the location for future winter meetings.

EDP Possibilities

In the formal program sessions, the group invited a specialist to discuss the feasibility of computers for tree care companies. James W. Polk, First Data Corporation, Tampa, Fla., outlined the 3 current methods for electronic data processing available to a company. Computers can be purchased or leased, he said. But the most practical step for many smaller businesses is a

third method which is use of a custom computer service.

Data service bureau centers offer a service in which they write programs to handle the various jobs desired by a company. They provide professional data processing counseling, help upgrade business procedures, set up cost accounting, and other services needed by a client. They can prepare economic surveys, develop market analyses, and make feasibility studies. Such custom services can also staff and operate a client's own owned or leased equipment.

Polk warned arborists that electronic data processing is not a program which can be attempted on a crash basis. Rather, he said, it needs careful consideration and time. Management needs to become acquainted with the capabilities of the system and its possible uses. As of now, Polk said, there is no

set formula for obtaining a profit by using a data processing system. Profits, he stressed, are derived from application of sound management principles, adequate planning, proper organization, and controlled execution.

Union Procedures Aired

How to react when the union knocks at your door was the subject of Daniel R. Coffman, Jr., Jacksonville, Fla., attorney. Coffman spent a good portion of his time telling arborists what wise management does before the so-called knock on the door. There is a crying need, he said, for management to become more knowledgeable and sophisticated on employee relations.

Coffman reported that he himself was well versed in the union guidebook written for union organizers. He further said he had discussed union problems in organizing with a union business agent.

Briefly, according to the union agent, chances of getting workers to organize are poor if employees are convinced that the company is not taking advantage of them. Other factors hurting unions in their efforts to organize workers are: employees who have pride in their work, good performance records

kept by the company which show that employee efforts are recognized and appreciated, a lack of highhanded treatment or discipline, no claims of favoritism which has not been earned through work performance, and supervisors who have good relationships with subordinates.

Coffman's union contact said his first advice to a non-union employer who wanted to stay non-union would be to get rid of supervisors who refuse to practice good day-to-day human relations in directing their employees. Also, he suggested getting rid of all borderline defensive-type employees who have forgotten (or never learned) how to give their employer a good day's work without griping. This direct union advice, Coffman said, confirms an old saying that the best union organizers are "first-line unqualified supervisors."

The first-line supervisor, Coffman said, is the keystone of good employee relations. He gives the company its image, whether good or bad. Coffman asked arborist employers to question their own operation. Do you, he asked them, have a method of supervisory selection which considers education, prior training, experience, and leadership ability? Succeeding questions from Coffman to arborists were: do you provide supervisors with adequate training in company policies, practices, and human relations; do you maintain an adequate margin between the supervisor's pay and that of his subordinates; and do you promptly follow up a supervisory selection to determine if it was a correct one?

Supervisors, Coffman said, must realize that they have a function other than getting the work out. They must know their men, and the men must feel free to communicate with them when they have problems or grievances.

Workers want security, Coff-



Daniel R. Coffman

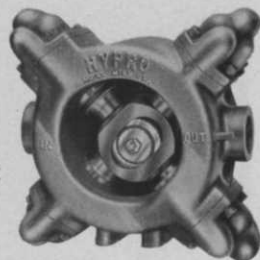
Hypro Pumps

for applying weed and turf chemicals

PISTON PUMPS

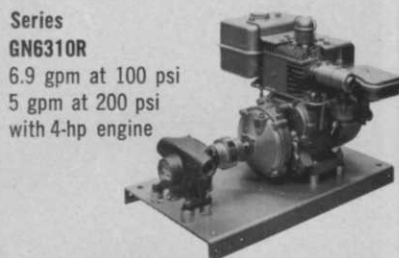


Series
C5210
BIG TWIN
10 gpm (at 600 rpm)
400 psi pressure
also available with gas engine



Series
5400
4-CYLINDER PUMP
25 gpm output at 600 psi

ROLLER PUMPS



Series
GN6310R
6.9 gpm at 100 psi
5 gpm at 200 psi
with 4-hp engine



Series **7560**
8-ROLLER PUMP
Output 12 gpm (at 540 rpm)
Pressure to 300 psi.



Series **1500**
6-ROLLER PUMP
Output 30 gpm (at 540 rpm)
Pressure to 150 psi.

Choice of rubber or nylon rollers
Write for complete pump catalog or request pump recommendation for your need



Hypro, Inc.

A subsidiary of Lear Siegler, Inc.

347 Fifth Ave. N.W., New Brighton
Saint Paul, Minnesota 55112

Clean up roadsides, ditches, or any noncrop land with MBC. MBC is a nonselective herbicide—spread or spray it on and it kills top growth almost on contact, leaches into the soil to attack roots, sterilizes soil for at least a season.

MBC completely eliminates Johnson grass, bur ragweed, hoary cress, and other troublemakers.

Also for low-cost control along roadsides or on smaller areas such as fence lines and around power-line towers, try Hooker Sodium Chlorate. It gives you control over all weeds and protects against their return for up to two years.

For more information on these powerful killers, write Agricultural Chemicals, Hooker Chemical Corporation, 405 Buffalo Avenue, Niagara Falls, N. Y. 14302.



Select
MBC®
or Sodium Chlorate
from Hooker to wipe out
roadside weeds fast



man went on, and those in non-union companies often fear that favoritism may determine who gets laid off. For this and other reasons, there needs to be a system to handle day-to-day worker grievances. Also, workers fear the accelerating rise in living costs. Union promises of negotiated wage increases thus appeal to the struggling worker. Therefore, Coffman believes that the most important single factor in employer-employee relations is the absolute necessity for upward communication, the kind that tells management what employees really think and feel about their work. Whether large or small, he said, a company can have good employee relations only if it has good supervisors and good employee communications. The larger the company, the greater the need for communicating and the greater the problems in accomplishing this.

Once the union does knock on the door, or sends the so-called "demand" letter, Coffman stressed that the employer maintain his "cool." This is not the time, Coffman told the group, to become emotional or fearful. His advice, though technical in nature, indicated to the uninitiated the need for labor counsel. Ramifications of each step taken by an employer at this point hinge on numerous rules, regulations, and court opinions. Best course, based on Coffman's experience and knowledge, though he did not voice this opinion, would be to avoid pitfalls by immediately seeking knowledgeable counsel. Employers have many rights in influencing their employees prior to a union election, none of which threatens any employee or promises him special benefits. But what actually constitutes an unfair labor practice is often subject to judicial review. Practicing a regular program of preventative maintenance is the most profitable policy, according to Coffman.

Veteran Arborists Organize National Consulting Service

A new consulting service is now available on a national basis. Veteran arborists in the industry have organized the American Society of Consulting Arborists. Eighteen charter members, located in 16 states, held their first annual meeting recently in Florida and put the new group on record officially.

New president, Consultant Henry Vaughn-Eames, Stockton, N. J., said that the group had been discussing such an organization for the past two years. The need for highly qualified, unbiased opinions for new developments, help in organizing shade

tree commissions, surveys, and for legal work has been evident for some time, Vaughn-Eames continued. He expects that more arborists, veterans in the business, will seek membership and official recognition by ASCA.

The new president in an interview with WTT, was careful to point out, however, that members are not being solicited. This group, apparently, is a highly selective and qualified group of individuals who are available for special consultant services. In instances where there might be a conflict of interest at the local level, a member consultant from

another area could be solicited for an unbiased and professional opinion.

Membership in the ASCA is based only on ability as an arborist. Rules do not require a veteran arborist to be a member of either the National Arborists Association or the International Shade Tree Conference. Vice-president of the new group, H. M. Van Wormer, Van Wormer Tree Service, 209 Seay Bldg., 3122 W. Clary St., Richmond, Va., is handling membership requests.

The original charter membership is made up of arborists with 20 to 40 years in the tree care business. Additional members will likely possess similar qualifications. Elected secretary-treasurer at the session was Ray Gustin, Jr., Gustin Gardens Tree Service, Inc., Gaithersburg, Md. Headquarters address for the new group is 700 Southern Bldg., Washington, D. C. 20005.

Charter members of the new American Society of Consulting Arborists are: seated, left to right, Hackett C. Wilson, Wilson Tree Company, Inc., Shelby, North Carolina; Riley R. Stevens, Stevens Tree Surgery, Portland, Oregon; James T. Turner, Turner Tree Service, Atlanta, Georgia; Henry Vaughn-Eames, President, Consultant, Stockton, New Jersey; H. M. Van Wormer, Vice President, Van Wormer Tree Service, Richmond, Virginia; Ray Gustin, Jr., Secretary-Treasurer, Gustin Gardens Tree Service, Inc., Gaithersburg, Maryland; F. L. Dinsmore, Dinsmore Tree Service, St. Louis, Missouri. Standing, left to right, Freeman L. Parr, Parr & Hanson, Hicksville, New York; George W. Goodall, Goodall Tree Expert Company, Inc., Portland, Maine; Walter P. Morrow, Morrow Tree Company, Sewickley, Pennsylvania; Winston E. Parker, New Jersey Certified Tree Expert, Moorestown, New Jersey; H. N. Engledow, Mid-Western Tree Experts, Indianapolis, Indiana; and Harry A. Morrison, Arborist, Wilmette, Illinois. Unable to be present for the picture were Ira F. Wickes, Ross Farrens, and C. L. Wachtel.



Nurserymen Promote Trees At California Exposition



Feature of Arbor Day at the California Exposition was the planting of a 10-foot ginkgo tree. Cal Expo was presented the tree by the Superior Chapter of the California Landscape Contractors Association. Nancy Rivett, a University of California at Davis co-ed who is Sacramento's reigning Tree Queen, took part in the planting. Others present for the ceremony were, left to right: George Cioli, president, Sacramento Valley Chapter, California Landscape Contractors Association; Donald B. Marty, president, Superior Chapter, California Association of Nurserymen; and Louis Roth, Cal Expo Director of Design and Construction. The tree was planted at the base of the American River levee near the main north-south pedestrian walkway. The ginkgo was selected for its beauty and history.

Sex Attractant Found For Western Pine Beetle

Researchers have found an artificial sex attractant of the Western pine beetle. Now they hope to develop a way to use it.

The discovery was made by Dr. David L. Wood, University of California, and Dr. R. N. Silverstein, Stanford Research Institute.

The Western pine beetle is a big killer of mature ponderosa pine sawtimber in the West.

The tiny beetle (about 4 millimeters long) damages the tree by boring through the bark to the cambium layer which carries the tree's life-sustaining sap. It then builds tunnels, into which it lays eggs, and introduces fungi. The fungi develop, stop the flow of sap, and the egg dies.

Needed Chemical Deicers Damage Highway Vegetation

A relatively uncharted area of scientific research felt the probes of scientists and highway engineers from seven states at a University of Connecticut symposium on pollutants in the roadside environment.

The exchange of ideas centered around three major problems, as set forth by William C. Greene, formerly with the Connecticut highway department and now landscape architect with the Bureau of Public Roads in Washington, D. C.: highways must be kept free of ice and snow for safe driving; highway engineers must know the most effective chemical deicers to use and the minimum rates to apply; and scientists need to determine the long-term effects of applying chemical deicers on water supplies, soils, plants and agricultural production.

As the symposium ended, most agreed that more research was needed on the deicing problem and side effects of pollution.

Research in New Hampshire, Virginia and Florida suggests widely varying susceptibility of different plants. Sugar maple, white pines and hemlocks seem most severely affected. But oaks and Norway maples are more tolerant.

Of the grasses, slender wheat grass, Kentucky 31 fescue, reed canary grass and Troy Kentucky bluegrass are most tolerant. In addition, black locust, honey locust, Russian olive and ponderosa pine are among the less susceptible smaller trees. White birch, redbud, privet and honeysuckle are among the more tolerant shrubs.

Damage to roadside plants seems to be insignificant if plantings are kept 30 feet or more back from the road. Some engineers would appear to favor, in the interests of safety, removal of all trees closely bordering roads. But at odds with this view are the conservationists, who

state that the beauty of New England roadsides is one of the area's tourist attractions.

According to Edwin D. Carpenter, University of Connecticut, the salts currently used—sodium chloride, calcium chloride, or mixtures of the two—are the most effective and economical obtainable for deicing roads. The deicing chemicals are used, in Connecticut at least, at rates of 800 to 1000 pounds per mile of two-lane highway.

However, applications may be much higher in the more northern and mountainous areas. Applications of up to 30,000 pounds of salt per year per 2-lane mile have been reported.

Although a conclusive case has not been established against the salts as the killers of roadside plants, the circumstantial evidence mounts. Dr. Avery E. Rich, of the University of New Hampshire, reported that nearly 14,000 dead trees were removed from 3700 miles of his state's roads in one year. Subsequent and continuing investigations indicate that a high proportion of those trees were killed by salts. Trees showing symptoms of salt poisoning appear to be slowly dying, often with reddish-colored leaf fringes and too-early fall coloration of the leaves.

Another factor of roadside pollution comes from engines of autos, trucks and buses. These engines put out ozone, sulfur dioxides, florides and nitrates—but the really dangerous products come from further breakdown of the first-stage chemicals by reaction with light.

Dr. F. A. Wood, of Pennsylvania State University, pointed to the multiplying output of hydrocarbons when he predicted that there would be 250 million autos in the United States by the year 2000. Autos are considered the most important source of hydrocarbons in the atmosphere. Fuel consumption will nearly triple from 1966 to 2000 A.D., with proportionate increases in pollutants.

Use a Royer Shredder to prepare today's soil mixes and you'll reduce tomorrow's maintenance

If your next job requires the very best soil mix, batch-after-batch consistency and high-speed production, start the job with a Royer Shredder. It'll keep you ahead of schedule with thoroughly mixed, aerated, trash-free soils that are easy to work with. Royerated Soils—that will permit you to schedule more jobs, meet tougher deadlines, realize more profit from every cubic yard, and *guarantee* better results!

A Royer is more than a shredder. It's a soil processing plant—on wheels—with a patented cleated-belt mechanism that delivers four-step soil processing: shredding and lump-breaking—the ultimate in mixing

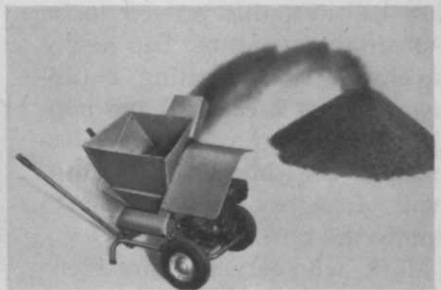
and blending—thorough aeration—and even built-in removal of sticks, stones and other trash from the final mix.

Royer Shredders are available in 40 models, with capacities ranging from 5 cubic yards an hour up to 100. We'll be pleased to send you descriptive literature. Or, better yet, arrange an obligation-free demonstration from one of Royer's 75 world-wide dealers. When you write, ask about Royer POWERScreens, too—for the preparation of uniformly fine, homogeneous topdressing.

As we said, you'll profit more when you start with a Royer. And you can for less than \$300.



Royer's big capacity Paul Bunyan trails to the job—is highly maneuverable.



Compact shovel-fed models are highly portable—can produce as much as 12 cu. yds./hr.



Superintendent 120 and POWERScreen ideally suited for preparation of topdressing and minor construction and repair jobs.

ROYER

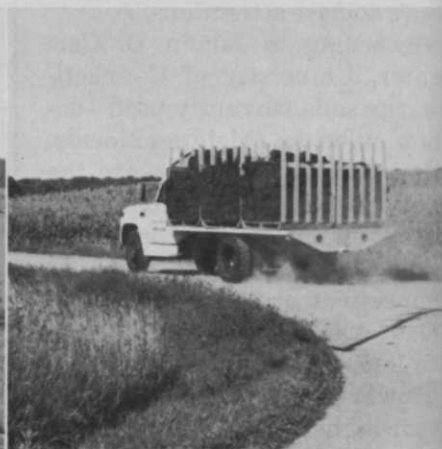
ROYER FOUNDRY & MACHINE CO. • 186 PRINGLE STREET • KINGSTON, PA. 18704



Turf rack pallet at unloading site.



Mowing cultured sod on Mork farm.



Greater highway safety in hauling.

Field To Lawn Sod Handling Equipment Is Basis For New MinnTurf Corporation

Sod producers in all sections of the country are faced with a labor shortage. One, Orrie Mork, Edina, Minn., found labor so short that he was forced to mechanize to stay in business. But, he says, this proved to be a profitable venture. His newly developed sod handling equipment proved successful and popular to the point that he has formed the MinnTurf Equipment Designs Corporation to handle the business.

Mork, who serves as president of the family owned enterprise, continues to operate Minnesota Turf Farms at Edina which produces cultured sod on Mork's farms. The business includes growing, harvesting, delivery, and installation. Mork says that they do the entire job, including fine grading. A large percentage of their sod is Park Kentucky bluegrass for parks, schools, and home lawns. A 2-way General Electric radio system between office, sod farms, and the landscaping operation helps maintain schedules.

New equipment which the Corporation sells includes a turf rack for handling palleted sod

and a series of scrapers for fine grading. These latter are built in various sizes, with ballast optional.

Of primary interest to growers is Mork's turf rack which actually constitutes a container system for handling harvested sod. The rack is designed in conjunction with a flat pallet. Idea behind the container system was development of a pallet with sides permanently attached. Also, Mork wanted a series of units which could be stacked and returned to the field in groups.

Result of the turf racks is a

sod container system at reasonable cost. The units save waiting time for trucks, permit use of forklifts for easy loading and unloading, and help eliminate the need for hand labor. Most important is the saving in time from cutting in the field to final laying on the installation site.

Easy Pallet Loading

The turf rack pallets are built to accommodate both 18 and 24 inch cut sod. Unskilled labor can be used for loading pallets. Sod rolls do not have to be tied in as is the case of sod loaded on

Flat bed unit insures a glass-smooth finish according to Mork.

