

At Last... An Answer to Thatch Problems!

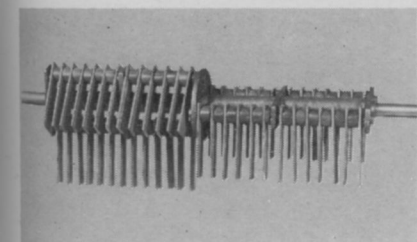
Thatch... a relatively new term, but a growing problem each year. We, at "Blue Bird", recognized the need for mechanical means of solving this thatch situation five years ago.

Turf Management Headaches

We had learned from turf authorities that thatch meant many things, each a headache to turf management: plant growth was hindered; fertilizers couldn't reach the soil; water penetration was inhibited. Plus the fact that this matting provided an excellent environment for disease. Yet no means of removing it was available except the back-breaking chore of using a hand rake.

Machine Built to Do the Job

Thus the "Blue Bird" Lawn Comber was born. And from its beginning, it was built to do the job *you* want it to do. We made it durable... a unit for commercial use. Flexible blades *comb*



Here's the Heart of the "Blue Bird"... a Multi-Bladed Rotor of Free-Swinging, Case-Hardened Blades.

out the thatch, but because these blades are free-swinging, they bounce back when encountering rocks or other obstacles... no metal fatigue, no costly breakdowns.

Unmatched Performance

The "Blue Bird" has seen many imitators since its inception. But no other has matched the response it has received from turf management personnel.



Ease of Performance is Unequalled. And Look at the Thatch It Combs Out!

Why? Because of the speed with which the "Blue Bird" completes a job. Because of performance... thoroughness no other unit can boast.

Unequalled Guarantee

And because of durability. We offer a warranty unprecedented in the industry. The "Blue Bird" Lamb Comber is guaranteed unconditionally against any breakage for one full year! One full year of commercial use. Which guarantees *you* continuous top performance, with no expensive downtime. Job after job... month after month.

Complete Customer Satisfaction

What does all this mean? It means customer satisfaction first

of all. Better lawns, better turf management. Profit? Well, it just about goes without saying, the "Blue Bird" is *the* top profit pro-



Your Customers Will Be Amazed at the Job the "Blue Bird" Does... So Will You.

ducer. High performance, virtually no maintenance. Figure it out... isn't the "Blue Bird" the unit *you* want to use to eliminate the thatch problem?



Simple, Efficient Height Adjustment Raises or Lowers the Rotor to Fit the Job.

Use the Unit that's Built to Do the Job!

Blue Bird

LAWN COMBER



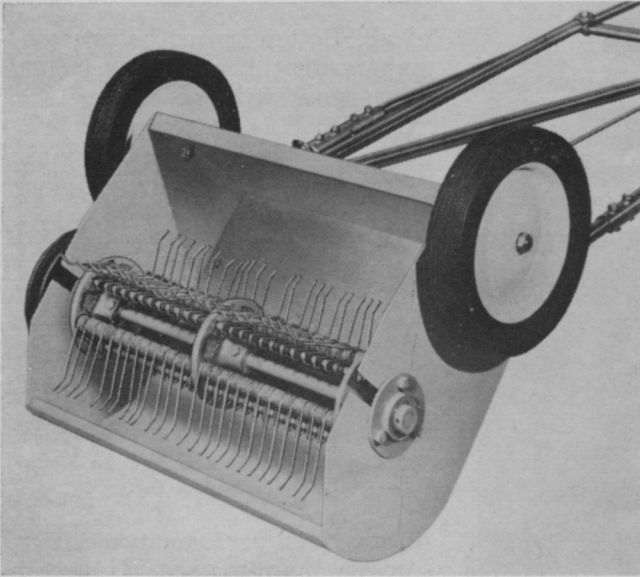
RENTAL EQUIPMENT MFG. CO.

1924 SO. NAVAJO ST.

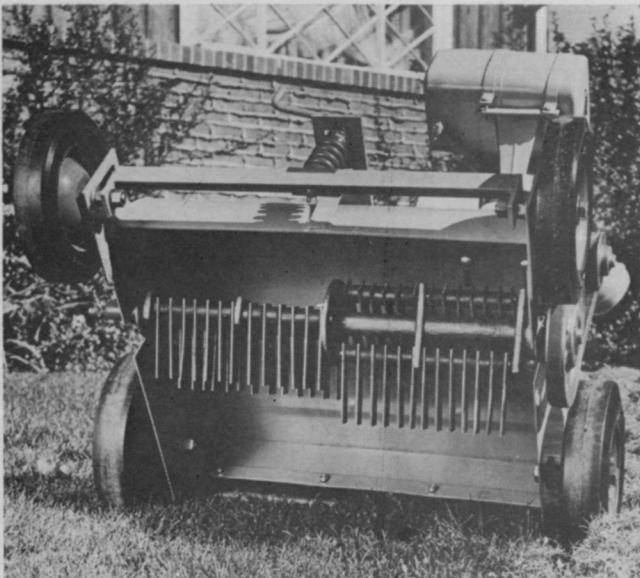
DENVER, COLORADO 80223

When Writing to Advertisers Please Mention WEEDS TREES AND TURF

Panorama of De-thatching Equipment



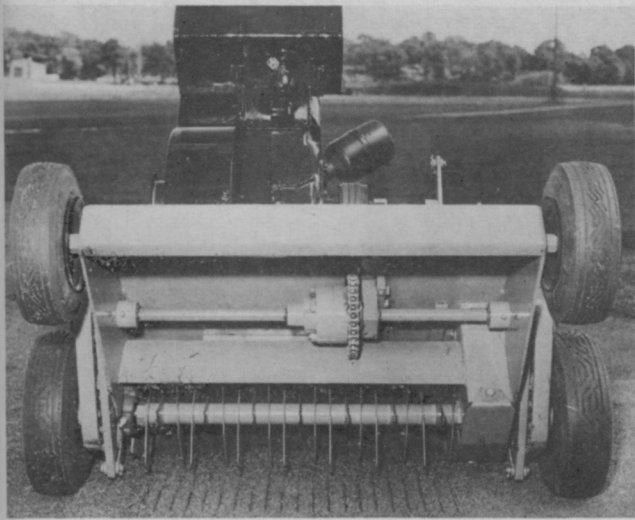
Thatch-O-Matic Model PR-6316 (left), from Parker Sweeper Co., has 104 rotating and self-cleaning tines and is powered by a 3 h.p. engine with a centrifugal clutch and recoil starter. Tine reel runs at 1200 R.P.M. or 125,000 tine-contacts per minute. Tines are said to be designed to comb out debris without mutilating the sod. Pictured below is a huge pile of thatch raked from sod with this Thatch-O-Matic.



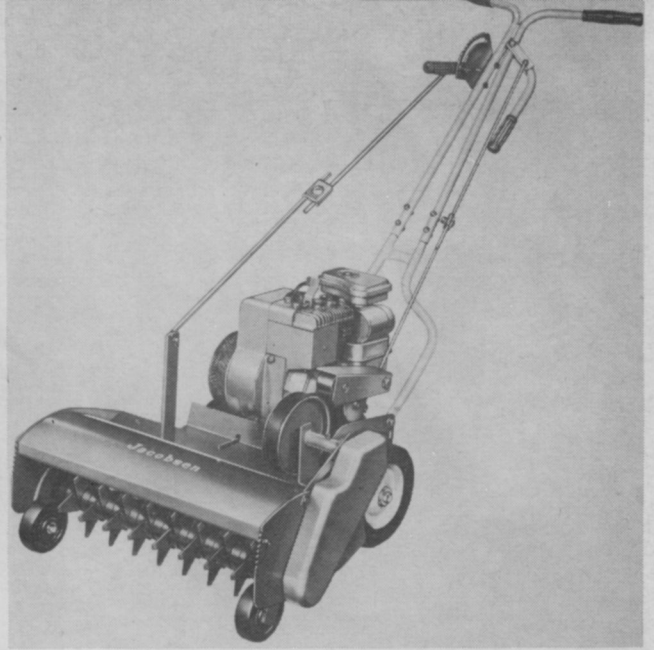
Blue Bird Lawn Comber, manufactured by Rental Equipment Manufacturing Co., is powered by a choice of engines ranging from 3½ h.p. to 6 h.p. The rotor, with its ⅛-inch steel blades, rotates at 1400 R.P.M. Blades are 4 inches long and cut depth is adjustable. Thatch is said to be removed easily from both bluegrass and bermudagrass by the free-swinging blades.



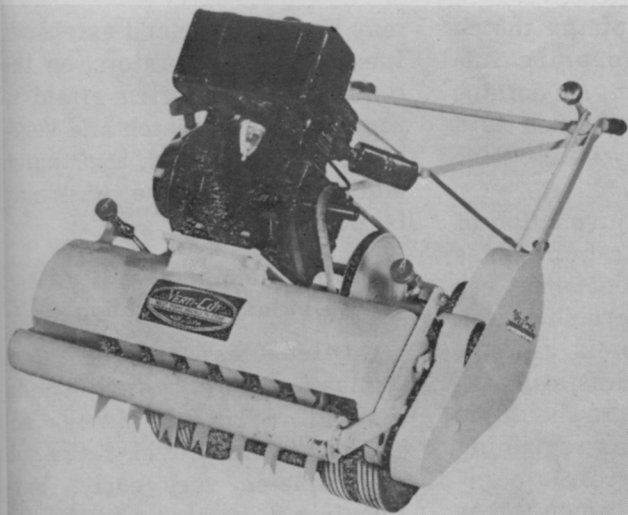
Contour Thin-Cut Renovator, Model 18, made by Henderson Manufacturing Co., cuts 18" vertically to the ground line, removing thatch and other undesirable material without harm to soil. Powered by either 3 or 4 h.p. Briggs & Stratton engine. Fifteen double-end steel blades cut grasses up and away from the operator for extra safety. Interchangeable Cyclo-Safe cutter unit (shown under housing) converts unit to a lawn mower.



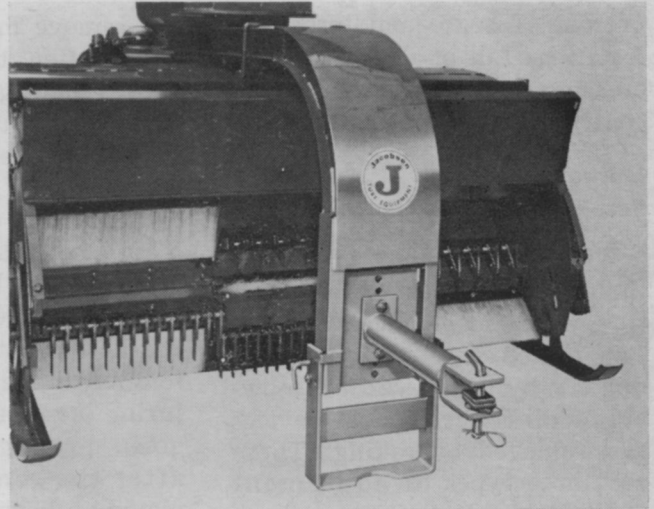
Mat-A-Way has 9 h.p. Briggs & Stratton engine with a triple V-belt drive. Blades cut from top of the turf with a downward action in the direction of travel. Blade reel is mounted on the center line of the drive wheels and is geared to revolve at 4,000 R.P.M. Slicing depth is adjustable; reel has both forward and reverse rotation. A variety of reel assemblies fit particular needs. Mat-A-Way is produced by Ryan Equipment Co.



Lawn Renovator has 25 hardened steel blades which lift, cut, and accumulate dead grass from turf. Blades can be individually removed without removing entire renovator. Powered by 4-cycle, 3 h.p. engine which has an automatic rewind starter. It also prunes, aerates, and cultivates grass plants. A product of Jacobsen Manufacturing Co.



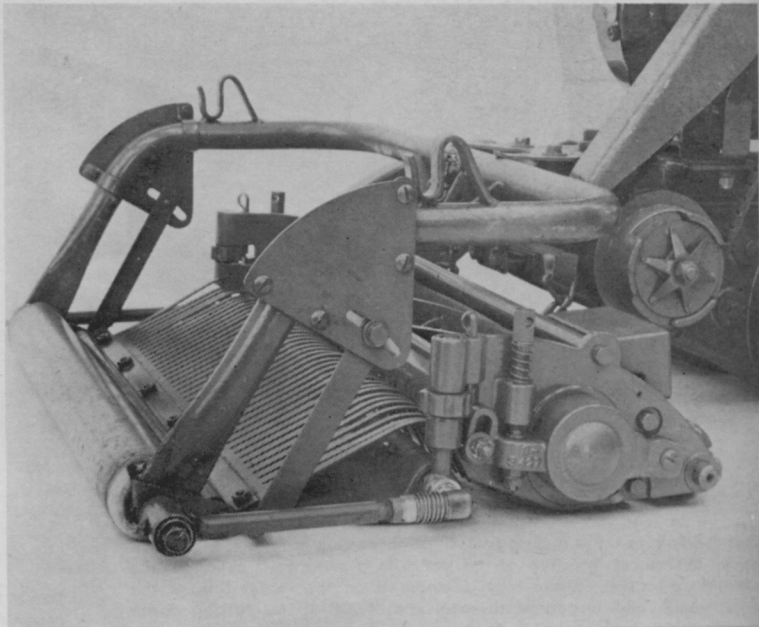
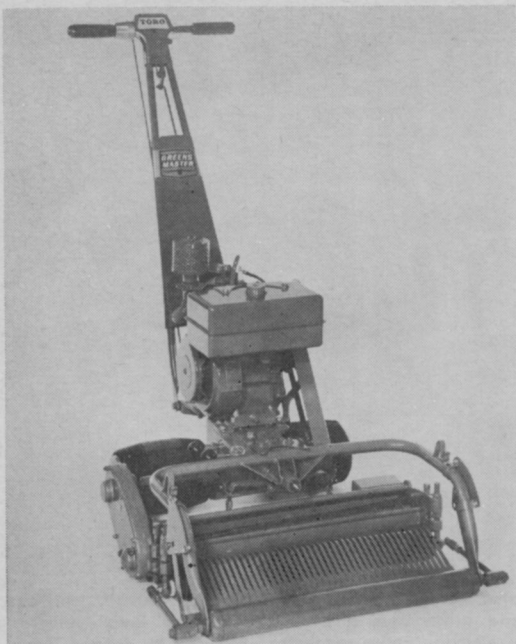
Verti-Cut Mower, Model VC-4, cuts rather than combs or rakes. Cutting reel rotates at 2800 R.P.M., and 30 blades, each with two cutting tips, spin to clean out thatch. Blades cut through the thatch and into the soil to thus renovate the turf. West Point Products is the manufacturer.



Turf Groomer is powered by a 24 h.p., air-cooled Kohler engine. From the rear, polypropylene brushes and 84 $4\frac{5}{8}$ -inch long carbon steel blades, free thatch-laden turf from its matting. Blades are adjustable to depths of $9\frac{3}{4}$ inches in $\frac{1}{8}$ -inch increments. Thatch and brushed grass are sucked up and blown to a catch trailer leaving turf in clean, renovated condition. Turf Groomer is also made by Jacobsen Manufacturing Co.

Turf Groomer pulled by a vehicle blows waste into trailing bin. Trailer is $11\frac{1}{2}$ ft. long, $5\frac{1}{2}$ ft. wide, and 8 ft. high, and is equipped with a rear release door and a winched draw bar for easy dumping of collected thatch.





Delmonte Comb, attached to a Toro Greensmaster 9-blade reel lawn cutter, lifts stringy grass blades up to cutting blades for an even mowing job. Flexible tongs of the comb are said to assure cutting at a uniform height and eliminate grain condition. Brush and roller attachments may be installed in place of the comb on the 21-inch mower frame. (Right) Closeup of Delmonte Comb. This is available from Toro Manufacturing Co.

present. Disease and insect infestations kill or damage an increasing number of plants again contributing to thatch buildup.

Mechanical Control Recommended for Thatch

What can be done to control thatch? Today most of the effort is toward mechanical control. The thatch layer is physically dug out by use of vertical mowers or other mechanical devices and removed by raking. There are three types of equipment available to do the job.

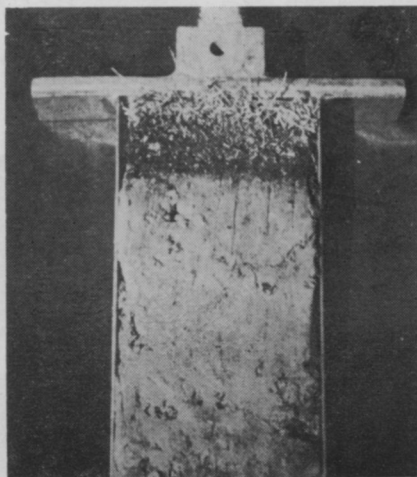
1. High speed—rigid blades—cuts whatever it touches.
2. Slow speed—rigid blades—combing and pulling action.
3. Slow speed—flexible blades—combing and pulling action.

Currently over 20 models from more than 12 manufacturers are designed to rake, comb, pull, or cut thatch from the soil surface. Most of these models do the job for which they are designed, however, it is important when purchasing renovating equipment to determine if the machine in question is designed to do the job you want it to do.

Soil aeration, although it does

not remove much of the thatch layer, often temporarily improves plant growth. An aerator used with equipment such as a vertical mower may be used for renovation.

Renovation or rejuvenation of most bluegrass or bentgrass areas should be done once per year. After considerable thatch has accumulated, it is difficult to remove without drastically injuring the turf. There should be green growing points remaining after the renovation is completed, otherwise brown areas



Profile showing thatch on top of a poor soil. Accumulation of organic matter like this acts as a thatch roof and prevents moisture and plant nutrients from moving down into the soil.

may be too severe and extensive. Inexperienced operators, on the other hand, are often afraid to remove enough thatch and vegetation. Removal of the thatch and up to 50% of the grass may be desirable.

Renovation Program Should Include Fertilization

On bluegrass and bentgrass renovation is most often done in the fall. Spring is also an acceptable time provided the job is completed very early. Fertilization is generally favored at the same time.

On golf greens, topdressing with soil is often used. If a thatch layer has already developed, top dressing will not eliminate the problem. Vertical mowing and aeration followed by top dressing is usually necessary.

In summary:

- (1) Thatch is a real problem and has often increased in spite of good management;
- (2) Much more information is needed about the effect of management on thatch accumulation, and
- (3) Mechanical renovation is recommended.

JOB ESTIMATING is essentially the science of figuring the costs of a job and arriving at a dollar amount low enough to get the work, yet high enough to insure a profit. The difficulty is not to get the job. Anyone can do that by simply submitting a figure too low. It is then just a question of time how long you can afford to stay in business. On the other hand, you can insure never losing—just submit a high bid. Naturally, you will not get any bid work either.

The secret then is to hit that area where you can get the job and still make money. This area is a rather narrow band and getting narrower all the time. Often a contractor, wanting the work quite badly, will shave his final bid before submitting it. A study of highway contractors' bids showed that 90% of the successful bids would have been the low bid at 10% more money. This is lost revenue—lost profits, and in some cases the 10% is the profit. I have found this to be true in my own case, yet I constantly am tempted to cut those last few dollars. Don't do it!

Two Types of Tree Care

In tree care today, the field is generally divided into two groups: the private homeowner, and the commercial or industrial customer. Some years back, by far the greatest amount of tree work came from large estates. Some retained a crew of men on a year-round basis. A few do today but the balance is changing. Larger estates are giving way to the millions of private homes and "small estates." Much of this work is seasonal; most of it of short duration. This then poses a problem of how to estimate a job that requires a crew of two or three men to prune deadwood out of one or two trees.

My approach to this problem is to insure, by fair treatment of the customer and reliable professional workmanship, that the customer will ultimately come to the conclusion that the fairest and cheapest way to get a small job done is to call and describe what he wants and just authorize you to do the work. I

Job Estimating in the Tree Business

By

W. H. BARTLES

W. H. Bartles Tree Service
Hyde Park, New York

maintain that this is the most economical way to handle small jobs. You have an established hourly rate with a minimum time. The customer gets the benefit of the time saved by the omission of your trip over to submit a price. Time today is money. We do not use a contract in these cases.

Are Contracts Necessary?

This approach to the small homeowner with his occasional job, and working without a contract has provoked quite a bit of discussion. Treemen seem to be fairly evenly divided on contract vs no contract. While they admit time could be saved by not bothering with a contract, they feel it is poor business. I maintain it is a calculated risk that enables a larger volume of business by fewer sales people. I also pointed out that the secret of the success of the whole procedure is that you must absolutely establish your reputation for fairness and professional workmanship. We must continue to give our customers the very finest of tree care and constantly strive to upgrade tree care methods.

In many customers' minds, there is a deeply embedded memory of being taken by someone years ago when they said, "Go ahead and fix it." Again I emphasize there is a difference in contractors. I believe that the majority of homeowners would dearly love to have a good reli-

able, trustworthy tree care company available, so that when the need came up, they could just pick up the phone and call — without the sparring and haggling over prices. We do not bargain with our doctors or dentists. Why shouldn't we receive the same professional respect?

"Patsy" Bids

Another phase of job estimating covered was the field of the "patsy" or the "second bid" required by a superintendent of an estate or cemetery. Many of these people have the trust of their employers but the moral integrity of the lowest type. They have their favorite contractors who "take care of them" with kickbacks. The unfortunate part, of course, is that most of the time they must get two bids so they can "award" the bid to the lowest bidder. So you are called in and asked to submit a bid. The first inclination that all is not on the up and up is the vagueness of details. There are no written specs to work from. The superintendent waves his hands and points to this tree and that tree. The type of pruning or, in the case of spraying, the ingredients and number of applications are not discussed. These are all danger signals. My advice here is to politely decline to bid. You are just wasting your time. The crooked superintendent cannot be stopped. He is despicable, but here to stay as a living testimonial to the existence of blocks in the path of ethical progress.

Dealing With Union Contractors

Job estimating when dealing with the large union contractor puts an entirely new face on the problem. Eighty to 85% of the tree care people, perhaps even higher, do not work with union employees. A few do sometimes, but none all the time. Again, the criteria is to know fully all the costs and to read the fine print very carefully. Do not sign a contract without full legal counsel. I did this in 1962, and am still trying to collect \$12,000.00 for work our firm did and for which the contractor received payment from the State of New

York, so I know. I have been there before.

Today's Records, Tomorrow's Reference

Of vital importance in the estimating field is the keeping of job records. After successfully getting the bid, complete daily records are a must. At the end of the work, an analysis should be made and a cost accounting studied. When complete, you will know if you made any money, where you might have been weak, and where, if the same job comes up again, you can use the data wisely.

This constant and changing cost picture must be continuously reviewed and applied if you are to be accurate in your estimate.

In conclusion, my position is very clear. Sound knowledge of the science of bidding plus a well-trained work force and good equipment are all necessary. Combine this with the very highest code of ethics and you must succeed. We have operated too long in the shadow of suspicion because some conniver could not resist a fast buck. Our customers are our livelihood. They deserve to be treated with the utmost respect. Our future is what we make it. and without ethics we have no future.

Colorado Rains May Increase Plant Disease Problems

Persistent moisture, high humidity, relatively cool nights and heavy dews are favoring the growth of powdery mildew, warns Dr. L. E. Dickens, extension plant pathologist at Colorado State University.

The disease is a grayish powdery mold which covers leaves of many garden flowers, lawn grass, shrubs and trees.

The best control measure, Dr. Dickens explains, is application of protective chemicals before any signs of mildew appear. If this is not possible, plants should be sprayed or dusted immediately after mildew is detected.

Recommended fungicides include dusting sulfur (300 mesh), Acti-dione PM (2 tbsp. per gal-

lon of water), Karathane WD (2 tbsp. per 3 gallons of water), or micronized wettable sulfur (1 tbsp. per gallon of water).

Dusting sulfur should be applied when the air is still and the foliage is dry. Avoid heavy deposits of dust on the leaves and do not apply sulfur (either dust or wettable powder) when temperatures reach 85 degrees. This will prevent leaf burn, the CSU specialist points out.

Fungicides should be applied at weekly intervals. Add a wetting agent such as Triton B-1956 to spray mixes for better coverage. For small scale applications, one teaspoonful of liquid detergent or one tablespoonful of powdered detergent per gallon of spray mix will act as a wetting agent.

Read fungicide labels carefully before using the materials, Dr. Dickens suggests.

Vigorous Growth Key to Rust Control in Merion

Rust in Merion bluegrass lawns can be kept at a minimum if vigorous healthy growth is maintained, reports Dr. R. E. Partyka, Ohio State University



A grass paint said to make browned-out areas in turf look like natural growth has been formulated for large-quantity users by Luminall Paints, Inc. Sold under the name Lawn Tint, the product is reported to be harmless to children, pets, and surrounding vegetation; can be applied with other turf treatment programs, and can be watered following application. Technical data, including application specifications, may be obtained by writing Luminall Paints, Inc., 3850 West Side Ave., North Bergen, N. J. 07047.

Dacagin Makes Bow

Special Dacagin demonstration kits were sent to 400 grounds maintenance men so that they could see for themselves how easily and quickly Dacagin turns thin weedkilling spray solutions into sticky gels.

Diamond Alkali Co., Cleveland, Ohio, says this new weedkiller additive was developed by them specifically for use with Dacamine, Fence Rider, Crop Rider, and Line Rider weedkillers. Use of Dacagin with weedkillers greatly reduces the danger of overspray and wind-carried herbicide to crops, grass, and other wanted growth.

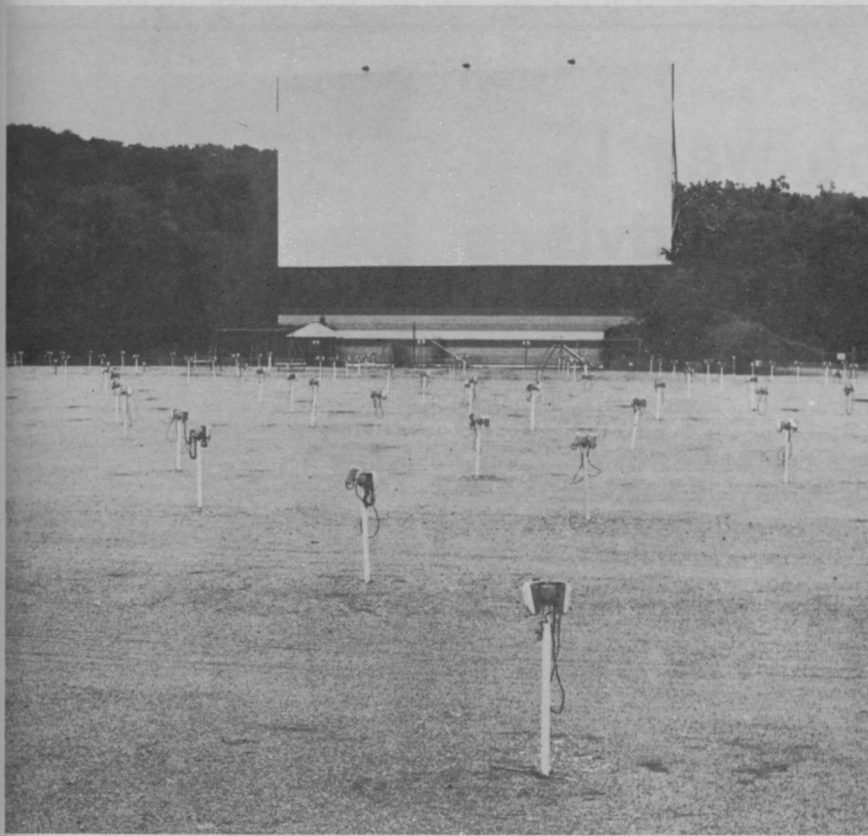
Made in powder form, Dacagin is mixed with diesel oil or kerosene and then with the solution of weedkiller and water. The resulting mixture stays fluid under agitation, but turns into a gel as it is sprayed, Diamond reports.

Complete details will be sent to those who write Diamond Alkali at 300 Union Commerce Bldg., Cleveland, Ohio 44115.

extension plant pathologist. He also reveals that the Merion variety of Kentucky bluegrass is more susceptible to rust than the common varieties.

The disease often becomes a problem in late summer, Partyka says. Early symptoms appear as a light yellow flecking of the leaves. As the areas enlarge, they elongate and appear in rows parallel with the veins of the leaves. The spots then burst and a reddish brown pustule develops. When an infected leaf is rubbed between the fingers, a red brown or yellow powder will be noticed. This powder is composed of millions of tiny spores which are the "seeds" of the fungus.

If rust appears, begin fungicide applications at 7-day intervals or more often if the disease is severe. Materials to use include Acti-dione-Thiram, or Zineb. Follow the directions of the manufacturer as shown on the label.



Drive-in theatre owners are constantly plagued with weed problems in their parking lots. Chem-Trol came to the rescue at this outdoor movie with 5 lbs. Prometone per acre, applied as a preemerge.

How Chem-Trol Eliminates Weed Control Callbacks with Geigy's Prometone

INDUSTRIAL WEED control has often been a hit or miss proposition and a frustrating experience. Not so today, thanks to advances in industrial weed control chemicals and methods of application by trained specialists.

Custom contract applicators whose specialty is the control of weeds around a wide variety of industrial sites are as highly conscious of man hours as most "service organizations."

Purchase of chemicals is, of course, a fixed cost varying according to the area to be covered. On the other hand, time involved, labor and overhead for that particular application, can run three to four times above material costs.

When any job requires a callback, due to customer com-

plaints, the resultant added fixed charges and time costs usually make the job unprofitable because the applicator cannot bill for this extra service. Further, callbacks use up time that could be utilized to do other and more productive work. Callbacks create an atmosphere of customer dissatisfaction.

For a profitable weed control operation, from the applicator's

viewpoint, it is important to eliminate callbacks. This means that the chemicals and techniques used on the job must provide positive control of all problem weeds and vegetation the first time they are utilized.

By the very nature of these requirements, no one chemical can be expected to provide perfect weed control in industrial areas. But, a combination of weedkillers, with a long-lasting herbicide as the basic ingredient, is providing one answer to the problem of cost control that many custom contract applicators are using with marked success.

Profitable weed control techniques, the conservation of time and materials, are not hard to develop. Darrel Odle and Glen Tolman offer a case in point. After several years as chemical sales representatives, they organized Chem-Trol Inc. in Kansas City, Kansas, to specialize in chemical control of weeds and vegetation on industrial sites. What they have done may provide guidelines for other weed control specialists anxious to save time and chemicals by eliminating callbacks.

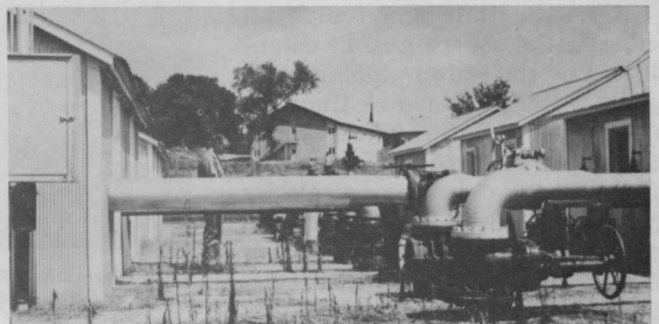
Says Prometone Is Key

A tour of the general area served by this enterprising organization reveals many successfully completed industrial weed control jobs where Prometone was utilized. These applications, shown in the accompanying illustrations, are typical of the end results.

Based on its favorable experiences with the persistent herbicide, Chem-Trol Inc. considers this chemical the key ingredient in its weed control formulations. According to Dar-

(Continued on page 24)

Kill of weeds and unwanted grasses at this gas metering station. Line of demarcation shows where 15 lbs. Prometone per acre and 1 lb. 2,4-D solved the problem here.



"Don't start the way I did," Bitterman Advises

By MARION RUBENSTEIN

More technical and marketing information for grass growers is needed by the sod producing business.

This plea for greater educational facilities to be made available to grass growers was made in San Antonio, Texas, by Fred Bitterman, owner of the Bitterman Grass Farm, located 12 miles from city limits there.

Bitterman, who has been in the sod producing business for the past 10 years, said: "What I have learned about this grass



First thing Fred Bitterman does each workday is check water supply from city lake.

growing business has been the result of costly mistakes. There should be a central clearing-house of information, where owners of grass farms like myself could come to for advice," he added.

Until the time when such an educational source will be established by the sod producing business, Bitterman says he finds his best flow of information comes from speakers at the annual conferences and conventions held by the Texas Turf Growers Association, and the Florida Turf-Grass Association of which he is an active member. "Or, you

get information from the other members you meet at these conventions, as well as from trade magazines," said Bitterman. He reads only *Weeds Trees and Turf* and *Southern Florist*.

Asked what information he needed most, Bitterman answered: "Weed control and management. But I can use all the other information I can get. I am just a sponge for information."

Up until recently, Bitterman specialized in st. augustinegrass which he plants vegetatively. Recently, he has been experimenting with other grasses like Emerald zoysia. Because st. augustinegrass does not seed abundantly Bitterman wants to venture out in other grasses.

Largest Farm Has 52 Acres

At the present time, he grows one crop per year of st. augustinegrass on two farms. The one that is shown here in these pictures is 52 acres and grows most of his production. Two miles away, he has another 8 acres.

Bitterman estimated that the total square yards of sod he sells annually averaged around 2200 square yards per acre.



Sprays irrigation ditches regularly to keep them weed free and ease gravity flow of water.



Only sales promotion Bitterman uses is this sign at his farm, and phone calls once a month.

Nurseries are his major market. His method of sale is direct. "Almost once a month, I get on the phone and call to get business," Bitterman explained. All his sales are "field delivered." Bitterman is adamant on this score. "That is the only way I work," he said. "My customers come and get it and pay for it right here."

The reason for his unswerving "Cash Only" and "Field Delivered" rule is because Bitterman believes that "once the grass leaves you, you have no control over it, so you cannot guarantee it." It works, strangely enough in this credit-crazy age.

Bitterman has built his business through use of chemicals to get "a quality, bermuda-free grass." This was not easy and took much of the 10 years he has been in business because, as Bit-



Grass is mowed daily. Here Bitterman discusses proper height of cutting blade with worker.

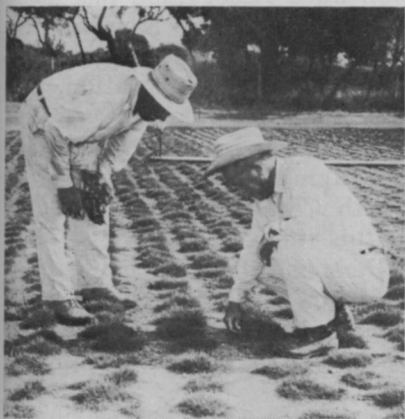
terman explains it, "I was contaminated with bermudagrass. I tried a number of chemicals until I happened to hit on the right one."

As to fungicides, Bitterman said: "I have very little trouble on that score and so have bought very little."

On weedkillers, he uses pre-emergence. "About 300 pounds of Simazine a year."

Bitterman says he uses about 40 tons 15-5-10 turf fertilizer a year.

"I have had no trouble with turf insecticides and so I have



Experimental plot of Emerald zoysia, is irrigated through pump and sprinkler setup.

used no other chemicals," said Bitterman.

In his work, Bitterman said he used two sod cutters, a Ryan and a Sodmaster; one flail mower; one power sprayer; one spreader/seeder; three tractors (Fords and Internationals) a couple of Toro reel mowers and rollers. He employs five men on a permanent basis.

Having reached his desired goal of quality bermuda-free grass, Bitterman expects to expand his business this fall. In addition to the monthly phone calls, he intends to send out sales letters to a wider area of nurserymen this fall.

Educate Yourself or Hire Experts

Since he is the major sod producer in the San Antonio area, Bitterman has achieved success in his chosen field of work. He did it without any basis of technical knowledge. He had been an advertising salesman for the telephone company, with a love of the outdoors and pride in his



No credit problems. Bitterman sells only for cash; customers come to his farm to get sod.

own beautiful lawns. Would he then advise newcomers to the sod business to be as adventurous as he has been?

Bitterman shook his head and said in a very sad voice: "Very definitely NO! It's been both rugged and heartbreaking, the way I did it. I thought that because my lawns looked the best in the neighborhood I knew all there was to know about growing grass. I found out that what I knew was only a spit in the ocean. It's a sad day when a man thinks he can grow grass on a farm as well as in his own yard."

Because of his own heartbreaking experiences, Bitterman advises all newcomers to the sod business to do one of two things. "Either get yourself a good education by taking a course in turf management at an agricultural college, or hire yourself someone who has a good education as your turf manager."

To avoid further heartbreak, Bitterman advises all newcomers to have enough capital before going into the sod producing business.

"To do it right, you need about \$1800 an acre," Bitterman said.

He indicated further that this amount of capital was not in itself assurance of success. "You have to have at least 50 acres to begin with, otherwise the cost of operation will be prohibitive for you."

It can not be any kind of land either, Bitterman said. "It has to be the right land. The ground must not be too sandy," he added.

There also has to be the right kind of water. "You just cannot

function in this business today without an abundant supply of cheap water," he said.

As to the methods of irrigation, Bitterman had this to say: "Some will sprinkle. Some will flood. I like to flood, because it's lots cheaper and easier."

His source of water is a city lake, and it's all gravity flow with irrigation coming through ditches. A small pump and sprinkler setup is used to irrigate about one acre of zoysia and Uganda bermudagrass.

As to the future of the sod producing business, and whether it holds a good living for the newcomer, Bitterman was most optimistic and had this to say: "Yes, I think the industry will grow by leaps and bounds, because people are becoming more conscious of the quality of their lawns."

Sees Change in Preference

As to the kind of grass that will sell, Bitterman foresees the time "in years to come" when the current popularity of st. augustinegrass will "grow less and less." In its place will be the "hybrid bermudagrass which will increase in popularity because it is a finer grass."

In preparation for this change of public taste, Bitterman is experimenting with smaller quan-



Customer asks question; Bitterman (right) answers, referring to WTT discussion of problem.

tities of Tifgreen #328, FB #137 NoMow Uganda, Emerald zoysia, and Floratine st. augustinegrass.

"I have about five acres of all these new grasses," Bitterman said. "If the demand grows, I

will expand with whatever shows the greatest demand."

Bitterman feels that the zoysia Emerald will show the greatest increase. "It is the best of the long grasses," he said. "And we have had five calls for it within the last month."

Further advice to newcomers is to "keep up to date in your information." This can be done by constant consultation with machinery and insecticide salesmen and those of other suppliers. "These men get around and they know what is going on. They can help you a great deal," said Bitterman.

New Tifdwarf Bermudagrass Superior for Golf Greens

"Tiny leaves of a new grass species grow so close to the ground that many of them are never cut by the greens mower," is the enthusiastic report from R. H. Garrison, head of the Clemson University Seed Certification Department, Clemson, S. C.

Known as Tifdwarf bermudagrass, it was released in April

of this year by Drs. Glenn W. Burton and J. Earl Elsner, of the Georgia Coastal Plain Experiment Station, Tifton, Ga. Garrison reports further, "Tifdwarf, like other improved grasses developed by the United States Department of Agriculture and the Georgia Coastal Plain Experiment Station, was released only through seed certification programs in order that buyers might be protected and to insure that they do not get a substitute."

Comparison tests between Tifdwarf and Tifgreen were conducted for a three-year period at the Tifton experiment station. In these comparisons it was learned that Tifdwarf was equal to or superior to Tifgreen on nearly every score. Very close growth to the ground helps Tifdwarf tolerate a $\frac{3}{16}$ -inch cutting height much better than Tifgreen. Its softer blades and fewer seedheads also contribute to its superior cutting qualities.

At the Coastal Plains Experiment Station, Tifdwarf gave a darker green color than Tifgreen

and required less fertilizer to bring it to a comparable degree of greenness. Its purple basic plant color, that helps to keep it looking dark green in the summertime, becomes very noticeable when temperatures drop in the fall.

Tifdwarf is not available at the present time for home lawns or golf courses. Plantings have been made by growers in the certification program and the Tifdwarf variety will be available for distribution in 1966, Garrison informs.

The South Carolina Foundation Seed Association has made a planting at the Sandhill Experiment Station, and the plot is available for observation and test work this year.

Official information on the performance of Tifdwarf in South Carolina is not available at this time.

Persons interested in securing Tifdwarf in 1966 may contact the South Carolina Foundation Seed Association at Clemson University.



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