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They now can be
controlled by a **NEW**
effective carbamate
insecticide **TURCAM®**

TURCAM Insecticide offers the professional turf and ornamental care specialists a new effective broad spectrum insecticide for the control of a wide range of ornamental and turf pests including gypsy moth, Eastern tent caterpillar, certain scale insects and weevils, Japanese beetles, sod webworms, chinch bugs, mole crickets, white grubs and various nuisance pests such as fleas, wasps and fireants.

In addition to controlling these and many other pests, TURCAM

- Will not damage your ornamentals
- Will not get tied up in your turf thatch
- Is odorless
- Is suitable for use in Liquid Systems.

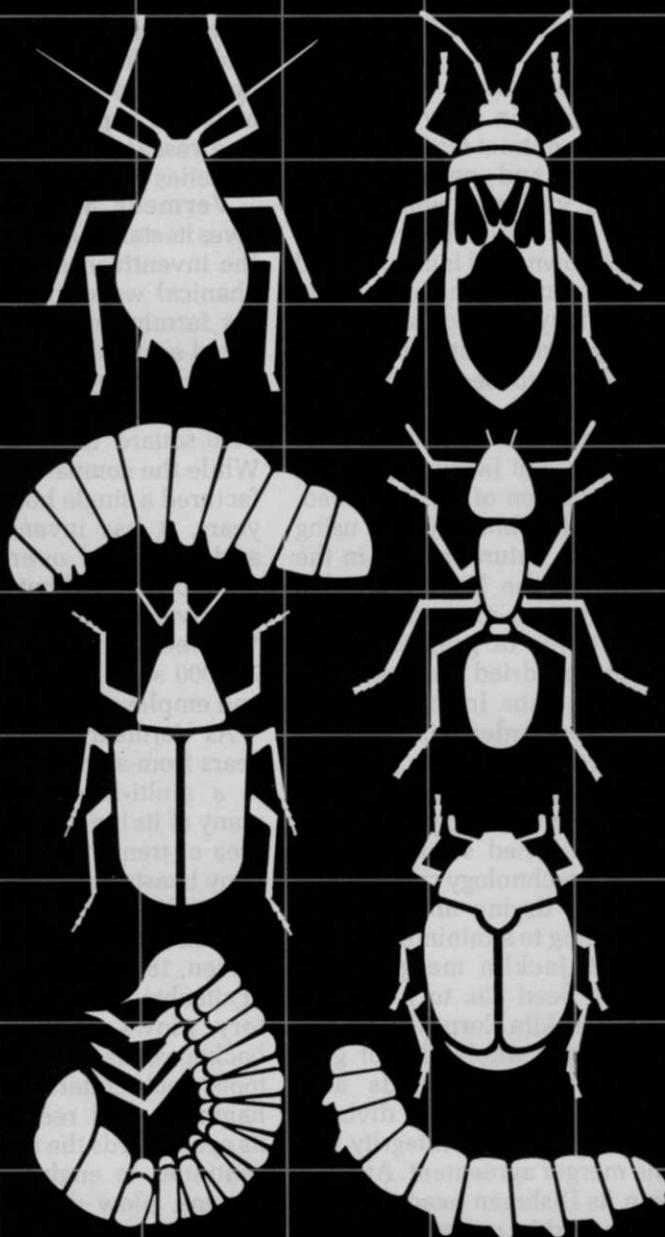
For further information on TURCAM including full labeling and recommendations for use please contact your local distributor or write to the address below.

TURCAM®
Broad Spectrum Insecticide



TM

BFC Chemicals, Inc.
4311 Lancaster Pike
Wilmington, DE 19805



potential, prospective varieties are quite often discarded because their performance shows no significant improvement over present varieties.

Jacklin currently produces or markets 41 Kentucky bluegrass varieties, 10 perennial ryegrasses, five bentgrasses, plus a number of fescues and seeds for environmental and reclamation use. Some of the company's most recent variety additions include Fyking, known as one of the outstanding varieties for cool season bluegrass regions; and Glade, which was developed to thrive in shade and full sun. Other recent additions include Cheri, Eclipse, Ram I, Wabash, Birka and Bayside.

As another part of its research program, Jacklin provides other companies contract testing, genetic purification, and propagation of new seed varieties which have been, or will soon be released. Contract grown seed is cleaned and readied for merchandising under each company's brand name.

Equally significant are Jacklin's contributions to seed production technology. Row cropping to produce foundation seed had been done before, but Jacklin applied it to the production of certified seed. The original technology was using a stripper on natural stands in the Midwest. In the Northwest this technology was altered to solid seeded stands of grasses which were cut and dried on large concrete drying slabs. In row cropping certified seed, Arden Jacklin used a swather to put the cut grass in windrows for drying in the field and used a combine to pick up and separate the dried seed from the stems. This technology cut losses of seed during drying and reduced seed handling to a minimum.

In 1972, Jacklin merged with Vaughan's Seed Co. to form The Vaughan-Jacklin Corp. Vaughan is a horticultural wholesaler of gardening equipment, seeds and plants. The Jacklin Seed division maintains its original integrity under the merger agreement. After 43 years in its Dishman headquarters, Jacklin moved its operation to new facilities in Post Falls, ID, in 1978. In April 1981, Jacklin purchased the Nezperce, ID, operating facili-

ties of Gold Coast Seed Co. In addition to the facilities, this added growers who devote approximately 4000 acres to production of lawn seed.

Two months later, Jacklin acquired certain assets of Jenks-White Seed Co., Tangent, OR. In 1980, Jenks-White reported \$6 million in seed sales. Jacklin currently farms over 5000 acres and combines with 23,000 grower acres in Idaho, Washington, Oregon and Montana.

For the past several years, three sons of Arden Jacklin have been managing the Jacklin division. Duane Jacklin is general manager, Doyle Jacklin, marketing manager, and Don Jacklin, production manager. Arden continues to be semi-active as supervisor of the extensive research activities for a wide varieties of grasses.

Vermeer Manufacturing Co. owes its start to a young farmer with the inventiveness to design a mechanical wagon hoist to speed up his farming operation and eliminated some of his work. The interest and demand for that product led Gary Vermeer to build a 2400-square foot factory in 1948. While the company has not manufactured a single hoist in the last 30 years, it has invented, produced and marketed over 50 different products throughout the world to a wide variety of customers. Today, Vermeer occupies more than 738,000 sq. ft. of production space and employs nearly 1000 people.

As Vermeer expanded over the years from a one-product company to a multi-faceted manufacturer, many of its innovations came in the area of trenching. Today the company boasts the most complete line of quality trenching machines. Models range from track to tire-driven, 18 to 195 hp and a selection of attachments that includes: vibratory plows, industrial loaders, backhoes, backfill blades, boring tools, rock cutters, rotary brooms, hammers, and reel carriers. With its eye towards the future, Vermeer continues to engineer new cutter designs, plow designs and precision grade controls.

Another segment of the company's Industrial division is devoted to tree equipment. (Trenchers are

also part of the Industrial division.) This year marks the 25th anniversary of one of Vermeer's star products—its patented stump cutter. The company markets seven hydraulically-controlled stump cutters and lays claim that it markets more stump cutters than all other competitive models combined.

In the late 1960's Vermeer introduced its tree spade. Designed to dig, transport and transplant large trees and shrubs, these units are available in five basic sizes as trailer, tractor or truck-mounted models. More recently the company has marketed its log chipper, log splitters and brush chipper with success.

While the Industrial division is comprised of tree and trencher equipment, the Agricultural/Irrigation divisions market numerous farm-related products. Long a well-respected name in the farm market, the last 20 years have been a period of unprecedented growth for Vermeer's Ag/Irrigation divisions. Two of the products that were responsible for this growth were the company's Traveling Sprinkler system and the Vermeer Baler. Today Vermeer has 900 farmer dealers who sell and service these and other farm units nationwide.

WTT



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and ask our growers
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OUR NEW 62. WE PICKED ITS ENGINE APART.

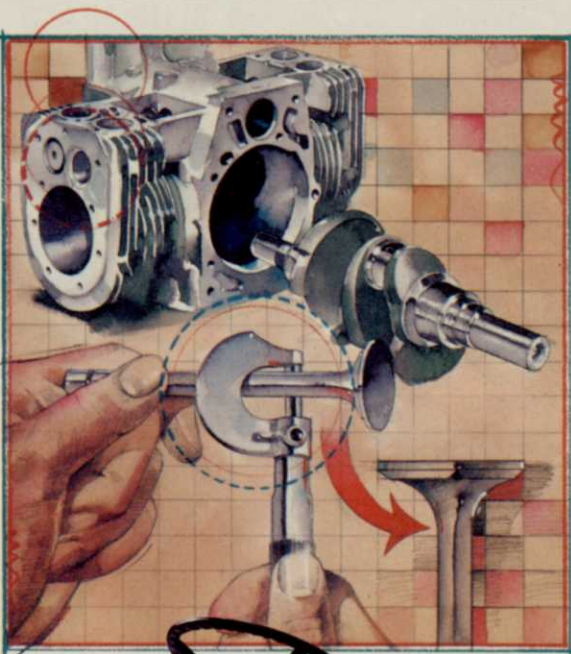
BECAUSE WE'RE PICKY ABOUT POWER.

When Toro introduces a new riding rotary mower, you can be sure it's engineered to keep you cutting.

Because, for one thing, we never forget that engineering begins with engine. Picking exactly the right power to match width of cut and kinds of attachments.

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So we've powered our new Toro Groundsmaster® 62 with an Onan 20 hp, twin cylinder engine. But only after considering 10 excellent candidates, narrowing them



down to 3 for testing, then literally picking apart our final choice.

We tested it on a dynamometer to verify its power rating. We tore it down and inspected it part by part for durability. We tested it for noise. We tested it for vibration. We tested it for fuel economy. Then, we ran it hard for 1,000 hours to make sure it was up to going to work for our new 62. And you.

And, to keep you cutting, we evaluated its serviceability, too. Made sure its routine maintenance points and replaceable oil filter are easy to get to.

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WT&T



Landscape Weed Control Guide

This annual project is a collection of information from more than 20 weed scientists in the United States. Each year the content will build, be updated, and get more specific. The purpose is to gather the most current data on herbicide use and application for the user.

Reader input to this annual project is welcome. Comments or experiences from readers will also be included in the Guide the following year. Write to Weeds Trees & Turf magazine, 757 Third Ave., New York, NY 10017.

Illustrations were provided by the New York State Turfgrass Association from an audio/visual series developed by Dr. Arthur Bing. The slide set and script to the program are available from NYSTA, 210 Cartwright Blvd., Massapequa Park, NY 11762.

**Buy a mowing tractor and
get a compact utility tractor
in the bargain.**



There's hardly a mowing job you can think of that a John Deere 650 or 750 can't stand up to.

There's also hardly any other job you can think of that one of them will back away from.

So they can promise you maximum productivity and flexibility. And deliver it for years to come.

Because, besides a choice of three mowers—center or hitchmounted for grooming, and rotary for rougher cutting—you get an almost endless choice of capacity-matched attachments: front loaders, tiller, disk, box scrapers, front and rear blades, even a posthole digger and a post driver.

Now, having that kind of choice is important. And so is knowing that all these are designed to attach quickly, without ever having to fabricate a fit or hope that someone else's attachment will work.

But most important of all are the tractors all those attachments attach to: John Deere 650 and 750 Task-Master™ Diesel Tractors.

They're high-clearance 14.5- and 18-PTO-hp tractors powered by fuel-sparing, long-lived diesel engines. On either model, standard features include 8 forward and 2 reverse speeds, 540-rpm rear power takeoff, differential lock, and a Category 1 3-point hitch. Plus options that include mechanical front-wheel drive, and traction-tread or high-flotation tires.

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And maybe best of all, they're priced right. Plus your John Deere dealer has a service and parts organization that understands what downtime can do to an owner who depends on his tractor for a living.

The John Deere 650 and 750 Compact Utility Tractors.

The tractors that give you big mowing capacity in a small size. And then go on to give you more.



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*Maximum PTO hp measured at 2600 engine rpm for the 650, 2400 engine rpm for the 750, factory observed.

WT&T

Landscape Weed Control Guide

First the drought, and now a tight economy, have forced some compromises in weed control programs. The exercise of working within restrictions has been a constructive one showing us alternatives we never sought to find.

The result is a landscape manager who thinks for himself in adjusting herbicide programs to fit local conditions. To accomplish this he needs to know more about herbicidal characteristics, target weeds, and environmental factors that effect control results.

The weed control product manufacturer has also responded to local needs with state labels for more herbicides and products designed to place herbicides where they are most effective. Expanded labels for existing herbicides have proven very useful to the landscape industry.

Changes are taking place which go beyond short term solutions to drought and economic conditions. Native vegetation is being planted where management of higher maintenance vegetation proved costly and time consuming. Native shrubs, wildflowers, and native grasses have allowed landscape managers the time and resources to concentrate on areas requiring regular maintenance.

Vegetation does not have to be native to perform aggressively in a particular region. Renovation of turf areas to more vigorous cultivars may solve a recurring weed encroachment problem. Weeds generally get a foothold by seeding or vegetative spreading while desired grasses are dormant or thinned by mismanagement.

Landscape managers in the transition zone, and even the southern cool season region are switching to improved tall fescues and zoysiagrass to maintain hardiness in the summer heat. Southern landscape managers find overseeding and herbicide applications during winter dormancy help to protect

desired species from weed encroachment. Advances in seed production and viability for zoysiagrass and centipedegrass may make renovation to these species more practical.

These are not the only alternatives by any means. Attention to mowing height, irrigation, soil pH, drainage, and compaction can assure the best defense against weeds, a dense, healthy turf. Other factors to consider are air circulation, shade conditions, and slope.

Some locations are simply too harsh for turfgrass to succeed and should be converted to a more realistic form of vegetation or the site altered to fit the needs of the turfgrass. Maintaining a good turf cover under trees and shrubs is often impractical. Parking islands in asphalt lots are generally too harsh for turfgrass survival and impractical for maintenance. Alternate landscape plans are needed for such areas.

One of the biggest maintenance headaches is weed control in ornamental displays. Shrubs, flowers, and groundcovers require much more maintenance than turf. Advances in preemergence and longer residual selective herbicides for container and bedding ornamentals provide some maintenance efficiency for these important landscape elements.

Nonselective weed control around fences, structures and plants has not changed appreciably except for the rapid, systemic properties of glyphosate (Roundup, Kleenup). The loss of silvex has caused some adjustment in clearance weed control.

Weeds

The problem weed(s) must be identified before effective control can be implemented. Many factors are based upon the specific target weed(s). These include application timing, chemical used, type of control which is most effective (pre- or

postemergence), and application method.

The desirable plants must also be identified to avoid damage. For example, use of some preemergence herbicides for turf on fine fescue or bermudagrass may cause noticeable damage and defeat the purpose of weed control from health and appearance standpoints.

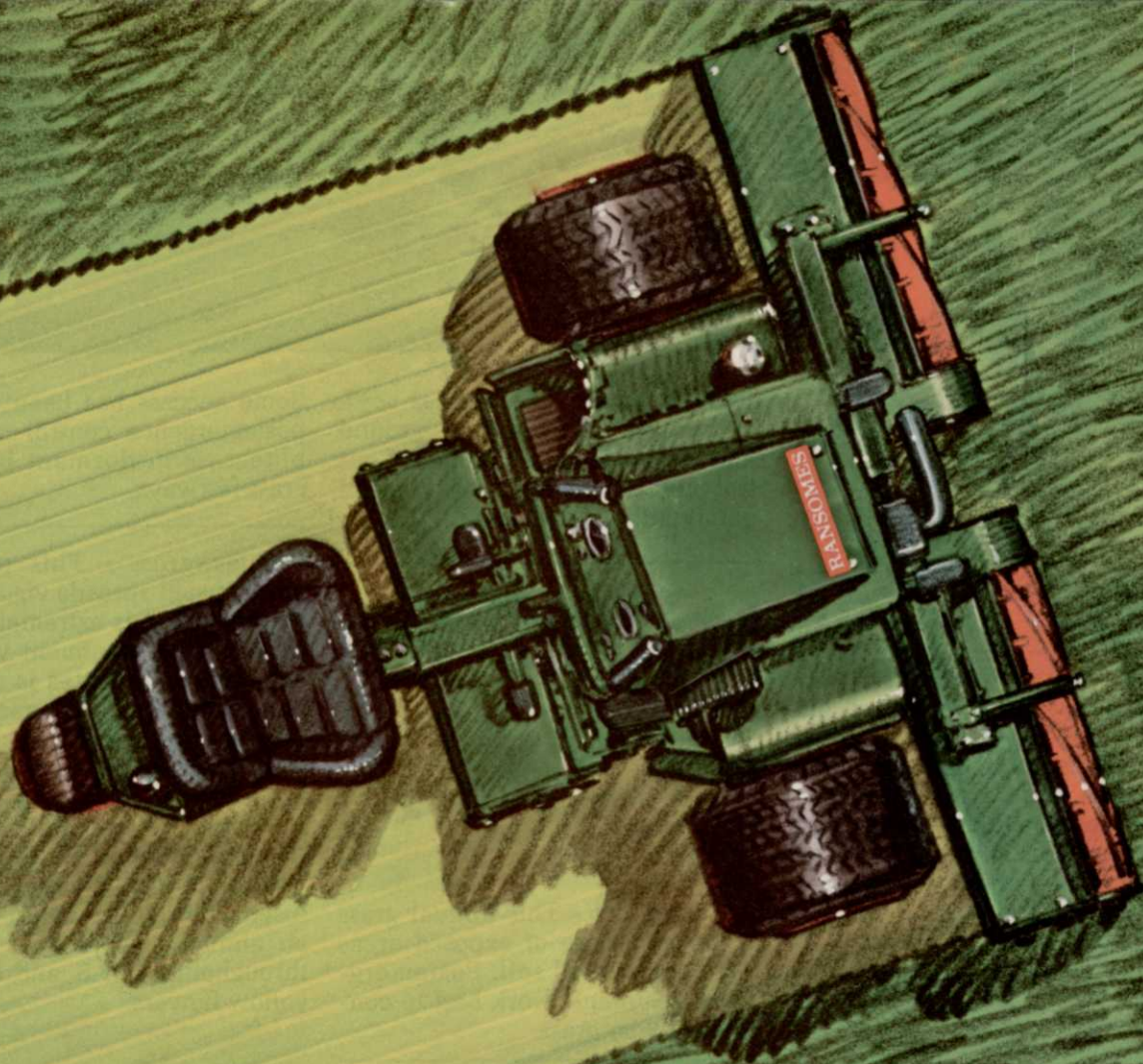
In this Guide, we will focus on the primary target weeds and the products that most effectively control them. Usually there are a number of weeds requiring control at one time and herbicides can be combined, such as broadleaf and grassy weeds in turf. There are very few one solution cures to standard weed control problems. Thought and planning are necessary. The primary distinction between weeds for control purposes is whether they are grasses (monocots) or broadleaf weeds (dicots). Herbicides designed for use against grassy weeds will be ineffective on broadleaf weeds. Furthermore, there is a separate set of herbicides for preemergence treatments and postemergence treatments.

Grasses

Bentgrass - A desirable grass in certain locations, creeping bentgrass can encroach on cool season turf consisting of Kentucky bluegrass, perennial ryegrass, and fine fescue. Bentgrass has extremely small seed and is a major target of seed producers during cleaning to provide seed buyers with certified seed. It is extremely difficult to selectively treat lawns to remove bentgrass.

Bermudagrass - Like bentgrass, bermudagrass encroaches on other desired grasses, but mainly in the South. This extremely hardy grass can outperform other warm season turfgrasses, even where it is not wanted. Bermudagrass is sensitive to a number of preemergence herbicides.

Continues on page 30



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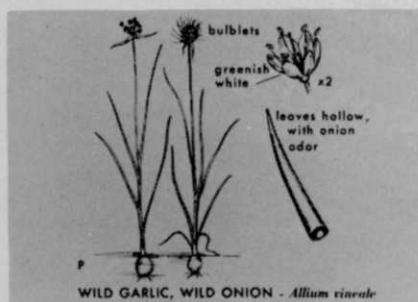
Landscape Weed Control Guide



Crabgrass - The number one spoiler of turf in many areas, crabgrass is an annual spreading grass. As a result, a great deal of research has gone into its control with much success. A properly timed preemergence program can effectively control crabgrass.



Tall Fescue - A coarse, hardy bunch grass, tall fescue damages the appearance of cool season turf. Tall fescue's drought tolerance and low fertilization requirement give it the advantage over cool season grasses. These same characteristics have led to selection of fine leaf types of tall fescue for low maintenance and transition zone turf.

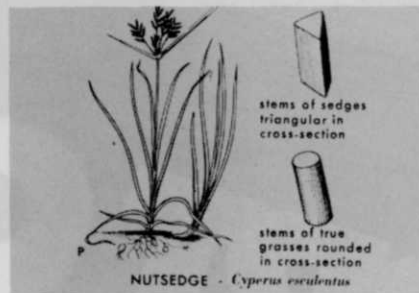


Wild Garlic - This perennial monocot, not a grass, has numerous

ways to spread. It produces seed, and can spread from above-ground and below-ground bulbets. Control must kill the bulbs and prevent germination of the seed.



Goosegrass - This annual grass takes advantage of exposed areas with compacted soil. Postemergence treatments work best to control this wiry grass.



Nutsedge - Yellow nutsedge is a major weed problem of turf. The perennial weed reproduces from seed and underground tubers. The yellow appearance of nutsedge makes it stand out in otherwise green turf. Systemic herbicides are required to kill the tubers.

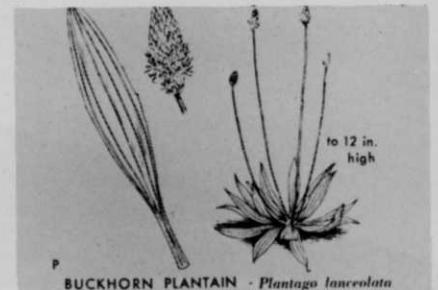
Poa annua - Persistent seedheads and blotches of summer-killed annual bluegrass make this a weed in the summer in the north and in the winter in the south. This weed thrives in well fertilized, irrigated, and low cut turf. Its light green color and white seedheads are easily spotted. Much effort is spent on trying to control this weed, mainly in preemergence applications.

Some success has been had with postemergence control of annual bluegrass in dormant bermudagrass fairways.

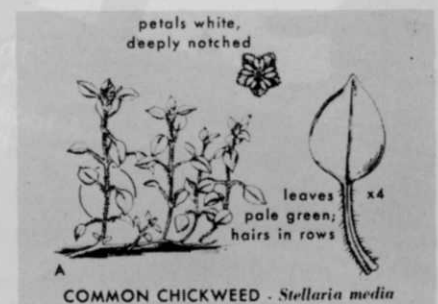
Quackgrass - This perennial grassy weed spreads vigorously by rhizomes and is extremely hard to control. Spot treatment with non-selective herbicides is often the only solution. Quackgrass is usually present when topsoil came from rural areas, such as in new home lawns.

Broadleaf Weeds

Black Medic - Occasionally confused with clover, black medic is an annual legume. It is common throughout the U.S. and has small yellow flowers.



Buckhorn - Present in many low budget lawns and mow-only turf areas of parks, buckhorn has a taproot that defies hand weeding. This perennial broadleaf resembles plantain.



Common Chickweed - This annual spreading weed of shady, moist areas has a white flower and light green foliage.

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