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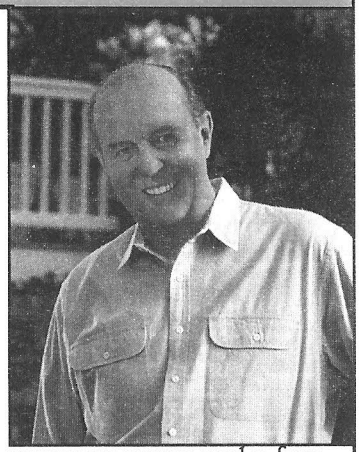
Jerry Baker
America's Master Gardener®

Introduction



The greenest grass on the block doesn't just happen; it is the result of the three P's - pride, patience, and persistence, as well as timing and common sense. And best of all, a thick, green and healthy lawn need not cost you an arm and a leg!

Nowadays, "quality" usually means high prices, and lawn and garden products seem to be no exception. This need not be the case, however, if you follow the tips, tricks and tonics in this booklet, and you use the highest quality, reasonably priced, yarden materials. With a little common sense and a few common household items, you too can have a lawn that even a professional greenskeeper would be proud of!

If you have a question about grass, seed, sod, or lawn care, why don't you call me **"On The Garden Line"** Saturday mornings from 8:00 a.m. - 10:00 a.m. EST on your local Mutual Broadcasting Station. The toll-free number is **1-800-634-3881.**

Also, or more comprehensive information, please refer to one of my other full-size books:

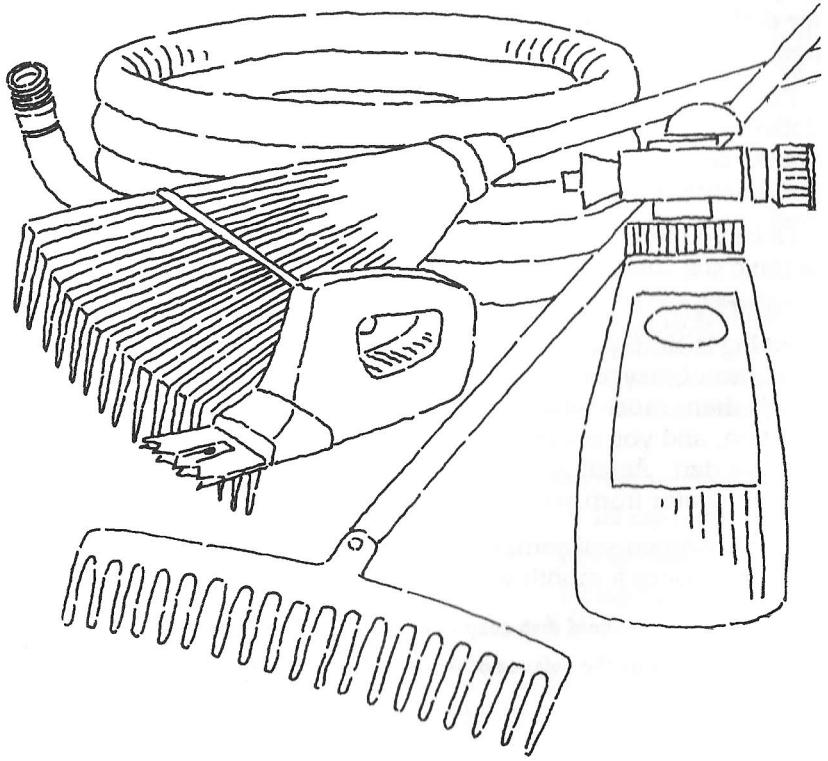
Jerry Baker's Lawn Book
The Impatient Gardener

or pick up a copy of **America's Gardening Newsletter, "On the Garden Line"**, which is also jam-packed with timely tips, tricks and tonics on lawn, garden and house plant care.

So without further delay, let's get up off our grasses and find out what you need to do to have the greenest grass on your side of the fence!

BASICS

It stands to reason that the most important step to having a healthy and attractive lawn is to keep it neatly trimmed and free from trash, excess grass clippings, and large accumulations of leaves; the latter 2 are a bonus if you collect and add them to your compost pile. Trimmed edges around flower and shrub beds, along walkways and driveways, and underneath trees and shrubs not only look attractive, but make insect, disease, and weed control that much easier and more effective. So remember **Jerry's First Commandment - cleanliness is next to Godliness when it comes to lawn care!**



DETHATCHING & Aerating

Dethatching and aerating go hand in hand if you want the greenest grass on the block. These jobs should be done from time to time, and not necessarily every year. The more you remove the excess decaying accumulation of grass clippings and aerate the soil, the thicker and greener your lawn will be. Thick grass also means less weeds.

So remove the thatch and aerate the soil!

DETHATCHING

Dethatching is removing the dead grass clipping build-up at the base of the grass stems. Fall (September 1st to 10th) is the very best time for dethatching. Early spring (April 15th to May 1st) is the second best time for dethatching in the north.

For larger areas, thatch can be removed with Thatch Buster™ or a dethatching blade that attaches to your lawn mower. These blades should be available at your local garden center. For smaller areas, a good dethatch rake is effective.

Once you remove the thatch, don't throw it out! Use it as an organic soil conditioner, or add it to your compost pile.

AERATING

Aerating is simply penetrating the soil over the grass roots to allow food, water, oxygen, and chemical controls to get to the area that needs them most—the roots. Golf shoes are the simplest form of aeration, and you should wear them whenever you are working in your yarden. Aerating sandals are also available, or you can rent a power aerator from your local garden center.

To slow down soil compaction and improve penetration, spray your lawn once a month with this tonic:*

1 cup liquid dish soap in your 20 gal. hose-end sprayer, filling the balance of the sprayer jar with warm water.

* All tonics in this book should cover approximately 2500 sq. ft. of lawn area.

RAKING

Lawn raking is a job that no one looks forward to and for good reason – it's hard work if your yard is big and a hand rake is the only tool available. The real lawn professional never lets excess leaves or grass clippings lay on the turf area for several reasons: it interferes with the turf's ability to breathe or manufacture chlorophyll, it encourages thatch buildup, and it robs the growing grass of nitrogen.

Bamboo, flexible plastic, or flexible steel rakes are the only rakes I recommend for your lawn. Do not use a bow rake on your yard to remove leaves or grass. The California Flex Rake is your lawn's first choice, and your back will concur.

A lawn sweeper is an excellent investment if you have a larger yard. It is also a great group purchase for several neighbors.

Remember, the material you remove from your lawn is worth it's weight in gold when it is converted to compost or soil conditioner. So don't throw it out!

To compost this material, simply pile it up in some out-of-the-way place in your yard. Soak each new layer of yarden fodder with this tonic in your 20 gal. hose-end sprayer. This tonic will really speed up the decomposition process.

1 can regular (non-diet) cola
1/2 cup ammonia
1/2 cup liquid lawn food
1/2 cup liquid dish soap

And while you're at it, always wear your golf shoes when you are working in your yarden!

MOWING

Mowing falls into the same "level of interest" category as raking—it's time-consuming, tiring, and boring, but it's a job that must be done.

When it comes to mowing your lawn, you must have a reliable, consistent and properly powered mower. The motor must run smoothly, the wheel setting should stay in place and not wobble, and it should have enough power (RPM's) to spin the blade to keep the grass blades up for cutting and to pull them into the bag. Pick up all grass clippings if possible.

If you pay close attention to your local golf course, you will seldom, if ever, see shattered blades of grass after mowing. Why? Because the Turf Superintendent knows that a dull mower blade does more damage than a whole boat load of insects.

So keep at least 2 blades handy and keep them razor sharp with a grinding wheel or a file. Also, keep them perfectly balanced; a nail driven into your garage wall can be your balance beam.

The first mowing in spring should be just above the newly emerging grass plants and then, moved up to an attractive length. The last mowing in late fall should be one notch **above** the one you will use next spring.

Mow in the evening, after 6 p.m., to prevent sunscald and to allow the cut ends enough time to recover before the dry, hot breezes begin again. Also, alter your cutting pattern for a more attractive effect.

To keep your turf area clean and mean, bathe it with this tonic in your 20 gal. hose-end sprayer once a month **after** mowing. If you do not pick up your grass clippings, then add a can of regular (non-diet) cola to this tonic.

1 cup liquid dish soap
fill the balance of the sprayer jar with warm water

And wear your golf shoes!

FERTILIZER

Do you know what those numbers on the fertilizer bag mean? Well, they're not the odds on your lawn living or dying! What they tell you is the percentage of each nutrient, nitrogen (N), phosphate (P), and potash (K), in the product. Here is a brief description of what each nutrient does:

Nitrogen comes from a convenient and inexhaustible source – the atmosphere surrounding the earth. Air contains about 75% nitrogen. Nitrogen must be made into compounds before it can be used on plants. **Nitrogen:** promotes vigorous plant growth • increases leaf yield • participates in chlorophyll formation (green color) • is a building block for protein.

Phosphate comes from "phosphate rock", a calcium phosphate mineral ore found in limited locations in the world, primarily North Africa. Drastic chemical treatment is used to convert the "phosphate rock" into a form usable by plants. **Phosphate:** hastens plant maturity • promotes cell division • stimulates healthy root formation • takes part in vital plant processes.

Potash is found as an ore formed by the evaporation of ancient seas and lakes primarily in Canada, Russia, Central Europe and the Middle East. Unlike phosphate rock, potash ore can be used by plants directly without extensive chemical conversion. **Potash:** is an essential nutrient for photosynthesis • strengthens plant tissues • promotes fruit formation • imparts disease resistance and winter hardiness.

In most cases, you want all the nitrogen you can get. To determine how many bags of fertilizer you will need to get 1 pound of nitrogen per 1,000 sq. ft. in each application, multiply the length of your lot by the width, then divide by 10. Then divide that number by the amount of nitrogen (the first number on the bag), and this will tell you exactly how many pounds of fertilizer to buy. Example: using a 10-6-4 fertilizer on a 50' x 100' lot: 50 x 100 = 5,000, divided by (N) 10 = 50 pounds of fertilizer.

SPREADERS & Sprayers

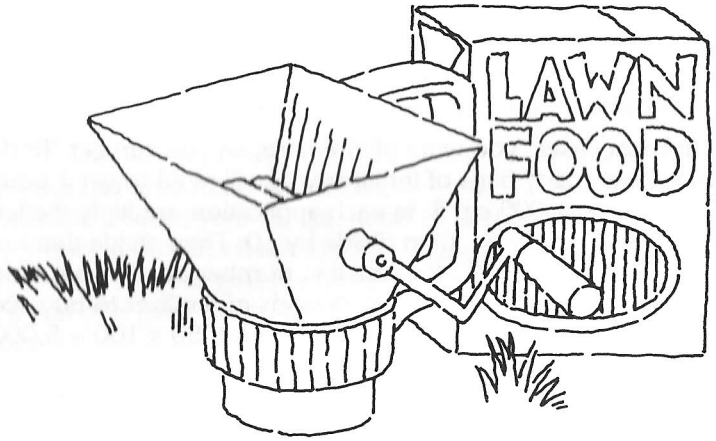
A balanced, regular diet will insure an attractive, healthy, weed- and disease-free lawn.

The best way to apply dry fertilizer is from a small, hand-held broadcast spreader. This little gem is light and easy to use. Simply fill it with your or your lawn's favorite food, set it on the medium setting, and take a hike out over your lawn. Then, water the dry food in with the liquid dish soap and water solution.

The best sprayers you can use to feed your lawn are called hose-end sprayers, with the most common being the 20 gallon variety. It is a broad pattern, turf sprayer that syphons the contents of the sprayer jar up through a small tube into the main flow of water, mixing the tonics as it passes over and out. Also, always keep a **white golf ball** in your lawn sprayer; it acts as an agitator.

Finally, there is nothing wrong with the liquid lawn services, if you can afford them. You must, however, still feed your lawn with a dry, balanced lawn food in both spring and fall.

And remember to always wear your golf shoes when working on your lawn! It's like scratching your lawn's back, and it makes all of the materials you apply more effective.



FEEDING Summary

Lawn feeding is the most important step to a great looking, healthy lawn. Unfortunately, it is also the most confusing.

Grass plants, just like people and animals, can only ingest and digest so much food at any one time. They like a decent, well-balanced diet, in adequate quantities, and on a regular basis. Excess food can cause indigestion and discomfort.

At the start of each growing season (there are 2: spring and early fall), you **must** feed your lawn with a dry fertilizer. The fertilizer you use does make difference, but what is more important is how, when, and how often you apply it.

FERTILIZING:

In both spring and fall, add 3 lbs. of Epsom salts to 50 lbs. (or 2500 sq. ft. bag) of your favorite dry lawn food. Apply at half the recommended rate with your hand-held spreader set on the medium setting.

3 lbs. Epsom salts per 50 lbs. (or 2500 sq. ft. bag) dry lawn food; apply at half the recommended rate

SNACK TONIC:

This tonic gets your lawn up and growing in both spring and fall when you need aggressive root action and thatch break-down. Apply the tonic with your 20 gal. hose-end sprayer after your first application of dry lawn food in spring, and last application in fall.

1 can beer
1 cup liquid dish soap or baby shampoo
fill the balance of the sprayer jar with ammonia

ALL SEASON TONIC:

After applying the Snack Tonic, every 3 weeks in the early morning, feed EVERYTHING in your yarden with this tonic mixed in your 20 gal. hose-end sprayer.

1 can beer
1 cup ammonia
1/2 cup liquid dish soap
1/2 cup liquid lawn food
1/2 cup molasses or corn syrup

Jerry Baker
America's Master Gardener®

FEEDING SUMMARY

PROPER TIMES FOR FEEDING YOUR LAWN

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bahia					XO							
Bermuda			XO								X	
Bent			XO						XO			
Bluegrass					XO				XO		X	
Carpet Grass				X					XO			
Centipede				X					XO			
Dichondra						X						
Fescue			XO		X				XO			
Zoysia			XO							X		
St. Augustine		XO						XO				

The "X" indicates the month(s) that it is necessary to feed your lawn. The "O" indicates the month(s) to use Weed & Feed.

FEEDING & SEEDING

If you fail to overseed in fall in the north, spring is the time to apply seed just before you feed, but only after you have accomplished the steps ahead of this.

Place all grass seed in the refrigerator for at least 48 hours in this tonic before sowing in spring to speed up its sprouting time.

1 cup liquid dish soap

1 gal. weak tea water

After removing from the refrigerator, spread the seed out on your driveway to dry out.

Cover all new seed with a light layer of professional planter mix or straw mulch to provide consistent moisture and cooler temperatues, and to reduce erosion and displacement of seed.

CHARACTERISTICS OF FERTILIZERS USED ON LAWNS

	Type	N	P_2O_5	K_2O	Soil-Acidifying Effect	Water Solubility	Potential for Burn
		Nutrient Content (In Percent)					
Ammonium Nitrate	Synthetic inorganic	33	0	0	Moderate	High	Very High
Ammonium Sulfate	Synthetic inorganic	21	0	0	Great	High	High
Urea	Synthetic organic	45	0	0	Moderate	High	High
Monoammonium Phosphate	Synthetic inorganic	11	48	0	Slight	Moderate	Low
Diammonium Phosphate	Synthetic inorganic	20	50	0	Moderate	Moderate	Moderate
IBDU (Isobutylidine Diurea	Synthetic organic	31	0	0	Undetermined	Very low	Low
Sulfer-Coated Urea (SCU)	Synthetic organic	38	0	0	Undetermined	Very low	Low
Milorganite	Natural organic	6	4	4	Undetermined	Very low	Low
Methylene Urea	Synthetic organic	38	0	0	Undetermined	Very low	Low
Superphosphate	Inorganic	0	20	0	Low	Low	Low
Treble Super Phosphate	Inorganic	0	45	0	Low	Low	Low
Muriate of Potash (KCl)	Inorganic	0	0	60	Low	Moderate	Moderate
Sulfate of Potash (K_2SO_4)	Inorganic	0	0	50	Low	Moderate	Low
Potassium Nitrate	Inorganic	13	0	44	None	Moderate	Very High

SNACK Tonic

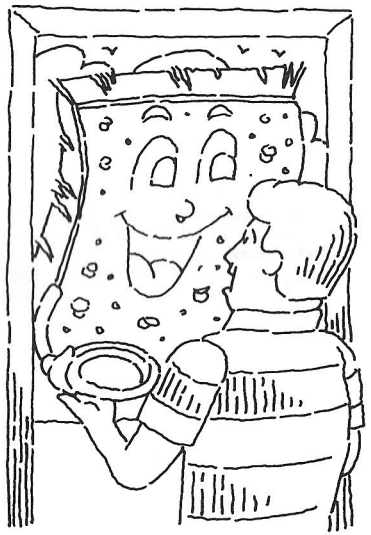
My spring Snack Tonic may sound like some magic formula from the days of old and actually, it is old, but not magic. Way back when, the annual waste from the floor of the cow barn was washed into the barnyard after milking time, and it laid there in large puddles. The farmers would then shovel or distribute this "barnyard tea" over newly seeded fields to give the new seeds something to eat until the regular fertilizer softened up and became available to the plants. This was an ammoniated gas that is basically the only form of food that plants can eat.

After you have applied the dry mixture of Epsom salts and fertilizer at half the recommended rate in spring and early fall, overspray with my Snack Tonic in your 20 gal. hose-end sprayer. This will get your lawn rarin' to grow.

1 can beer
1 cup liquid dish soap or baby shampoo
fill the balance of the sprayer jar with ammonia.

The Epsom salts stimulate root growth and act as a little snack until the lawn food becomes available. The ammonia is a more modern and acceptable form of barnyard tea, and the soap washes off the blades of grass and softens the soil to allow the plants to eat through both their roots and foliage.

Your lawn will like this tonic so much that it'll probably knock on the door and ask for seconds.



REGULAR Meals

After you apply the Snack Tonic, it's time to drop the other shoe! 10 to 14 days after the first application of dry lawn food is in the plant pipeline and available for the now young, tender, fast-growing grass plants, it's time to begin regular feedings. It is best to feed and apply tonics in the early part of the morning, never at night.

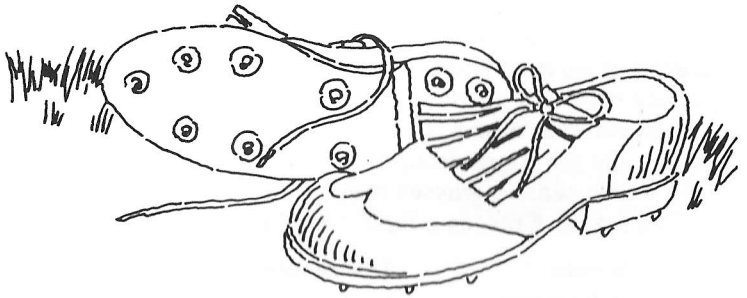
So every 3 weeks in the morning, within 2 days of mowing, apply my All Season Tonic with your 20 gal. hose-end sprayer:

1 can beer
1 cup ammonia
1/2 cup liquid dish soap
1/2 cup liquid lawn food
1/2 cup molasses or corn syrup

Then it's time out for another beer! Let me tell you, growing grass is hot and tiring work. But wait a minute, the beer is not for you, it's for your lawn! So about once a month, fill your 20 gal. hose-end sprayer jar with this tonic.

1 can of beer
1 cup antiseptic mouthwash
1 cup chewing tobacco juice*

And wear your golf shoes!



*To make chewing tobacco juice, place 3 fingers of chewing tobacco in an old nylon stocking and let it soak in a gallon of hot water until the mixture is dark brown.

SEEDING

GRASS SEED VARIETIES FOR U.S. CLIMATIC ZONES

ZONE 1

This is the northern half of the United States, and would best be characterized as the cool season grass area of the country. The winters are cold across the entire area and the summers are mild. There is a wide variation in moisture availability across this area, which would require different methods of care for cool season grasses in some areas. Cool season grasses for this area are:

Bluegrasses (all varieties)
Chateau
Huntsville
Other well-known turf-type varieties
Fine fescues
Creeping red fescue
Flyer red fescue
Chewings fescues
Tall fescues

Turf-type tall fescues
Finelawn 2 and Finelawn 5GL
Trifecta turf-type Tall fescue blend
Other well-known turf-type
Kentucky 31 tall fescue
Perennial ryegrass
Citation II

Sunrise 246
Sunrise blend
Pennant
Derby
Other well-known turf-type varieties
Annual ryegrass (for a temporary cover)
Blends of the above grasses

ZONE 2

This area is best characterized as the transition zone between the cool season grass area and the warm season grass area. Winters are typically cold, but not severe. Summers are hot and dry in some areas, and humid in others. Cool season grasses are best for this area, especially the more drought tolerant grasses such as tall fescues, but warm season grasses may be used in the more southern and coastal areas. Grasses adapted for this area are:

Tall fescues
Turf-Type tall fescues
Finelawn 1 and Finelawn 5GL

Trifecta blend
Perfecta blend
Other well-known turf-types varieties

Kentucky 31 tall fescue
Fine fescues (shade grasses)
Creeping red fescue

Flyer red fescue
Perennial ryegrass (for over-seeding warm season lawns)
Citation II
Sunrise 246

Sunrise blend
Pennant
Derby
Other well-known turf-type varieties

Annual ryegrass (for overseeding warm season lawns)
Bermuda grass (only in the southern states of this zone)

ZONE 3

This zone is the warm season grass area. Winters are cool and mild, and the summers are hot. The eastern half of this area from east Texas east is usually humid most of the year. The western half of this area from west Texas west is dry and desert-like. Grasses adapted for this area are:

Bermuda grass
Carpetgrass

Annual ryegrass (for over-seeding warm season grasses)

Centipede grass

ZONE 4

This is the sub-tropic area of the United States where winters are very mild and summers are hot. Rainfall is abundant and humid conditions persist. Grasses best adapted for this area are:

Bahia grasses
Argentine (best)
Pensacola (toughest)

Bermudagrass
Carpetgrass
Centipede grass

Annual ryegrass (for over-seeding warm season grasses)

SEEDING

STARTING GRASS SEED

To be sure your lawn gets off to a good start, you should only buy the highest quality grass seed. The seed should be sown when the days are warm and the evenings are cool. The soil should always be loosened to allow the new roots easy movement into the soil. Cover lightly with topsoil and keep the area damp.

For spot seeding in hot weather, soak the seed in this tonic. Refrigerate for 48 hours, spread the seed out on a warm, dry surface to dry, and then plant as recommended.

1 cup liquid dish soap

1 gal. weak tea water

GRASS ZONE MAP FOR NORTH AMERICA

WATERING

For the most part, watering is a pain in the grass for both you and your lawn. It's a pain for you because you have to do it, and for your lawn because usually you forget to.

Lawns should always be watered before 2 p.m.; anytime between 5 a.m. and 8 a.m. is best to minimize evaporation. Never water at night unless you are using a soap and water solution, fungicide, or insect spray.

An impulse sprinkler is by far the best type of lawn sprinkler for most of you folks who must rely on a garden hose for your water supply. It delivers more water, over a larger area, faster than any of the other types of sprinklers. I like them because I can hear them working. If you want to increase the distance of an impulse sprinkler, simply raise it up on a box or bucket. The higher it sits, the larger the area it covers. And wear your golf shoes!

JERRY'S LAWN CARE TIPS

1. Always wear golf shoes when working on your lawn.
2. Water before 2 p.m.; between 5 a.m. and 8 a.m. is best.
3. Pick up all grass clippings and use as a garden mulch.
4. Apply weed controls between 1 p.m. and 3 p.m. on a bright, sunny day.
5. Apply disease controls after 7 p.m.
6. Mow after 7 p.m. for your and your lawn's comfort.
7. Mow only with a sharp, sharp blade (buy extras).
8. Hose down your mower after each use.

WEED Controls

Weeds! Ah, the word strikes fear into the hearts of most homeowners. It a never ending and for most folks, a non-winnable battle (at least that's what it seems like). Well, it's not, if you know what you're doing.

The best time to control weeds is early fall. But don't cry over spilt milk. If it's spring or summer, we'll still do it right.

Weeds are frustrating to both the professional and home gardener, but with proper timing and the right controls, you can pretty well alleviate much of the frustration and put the fun back into lawn care.

PRE-EMERGE WEED CONTROLS

If crabgrass or other spring sprouting weeds are a problem, then as soon as possible in spring, apply any pre-emerge weed control before noon and water in with this tonic in your 20 gal. hose-end sprayer. 1 cup of dry laundry detergent can be mixed with dry pre-emerge controls.

1 cup baby shampoo
or liquid dish soap
1 cup hydrogen peroxide
2 tbsp. instant tea
(liquid pre-emerge controls can also be added to this tonic)

WEED CONTROL

To really zing weeds, apply this tonic with your 20 gal. hose-end sprayer between 1 p.m. and 3 p.m. on a bright, sunny day. Then follow up with either a liquid or dry weed control.

1 cup liquid dish soap
1 cup ammonia
4 tbsp. instant tea

Do not punish your entire lawn if you only have a few weeds. Spot treat with a ready-mix broadleaf killer in a handy sprayer bottle, or mix just enough to use in a compression sprayer.

If your weed problem is widespread, then use a lawn spreader for dry applications and a hose-end sprayer for liquid applications.

INSECT & Disease Control

Insects are just a way of gardening life; there is simply no way to eliminate every insect, nor would you want to. But with a few precautions, you can keep them under control. The same is true for lawn diseases, which usually look worse than they actually are.

If you are feeding properly, watering at the right times, mowing with a well-tuned machine, dethatching, washing and beer shampooing, odds are that your lawn will stand up and fight its own battles with the bugs and diseases; but giving it a helping hand would be a nice gesture on your part.

INSECT PREVENTION

Before you do anything, take a 20 gal. hose-end sprayer and paint the word **WARNING** on the sprayer jar with red nail polish. Put an orange golf ball (an agitator) in it and then use this sprayer only for applying pest controls at their recommended rates.

To debug and disease-proof your lawn, apply this tonic with your 20 gal. hose-end sprayer. Follow up within an hour with an application of Dursban or Diazinon at the recommended rate.

1 cup Fels Naptha
Soap Solution*
1 cup antiseptic mouthwash
(if nematodes are a problem, use a mint mouthwash)
1 cup chewing tobacco juice

The most popular and best all around insecticide for turf insects is Dursban. There are several lawn fungicides, but Benymol seems to cover a large number of turf diseases.

And wear your golf shoes!

*To make Fels Naptha Soap Solution, shave 1" of Fels Naptha bar soap in an old nylon stocking and place into a gallon of boiling hot water along with 4 oz. of baby shampoo or liquid dish soap.

SPRING & SUMMER Checklist

Our objective is to make sure that your lawn is a compliment to you, your home, and your neighborhood, and not a drain on your time, effort, or pocketbook. So with that in mind, let's run through the basics.

THATCH CONTROL

If a layer of more than 1/4" of thatch is allowed to accumulate, you can almost bet on insect and disease problems as well as a heavy crop of weeds. So:

1. Wear your golf shoes whenever you walk on your lawn.
2. Periodically mechanically remove thatch with a long-handled dethatching rake (for small areas) or power dethatcher (for larger areas).
3. Apply this dethatching tonic with your 20 gal. hose-end sprayer as soon as the temperature stays above 50°F in spring.

1 can beer
1 cup household ammonia
1 cup liquid dish soap
1 cup regular (non-diet) cola

FERTILIZING

Always apply lawn fertilizer, both dry and liquid, before noon. Be sure to water the area the day before and then always lightly water after any application. This allows the grass to begin to digest the food right away.

1. In both spring and fall, add 3 lbs. of Epsom salts to 50 lbs. (or 2500 sq. ft. bag) of your favorite dry lawn food. Apply at half the recommended rate with your hand-held spreader set on the medium setting.

3 lbs. Epsom salts
per 50 lbs. (or 2500 sq. ft. bag)
dry lawn food;
apply at half
the recommended rate.

2. Use this tonic as your regular feeding, applied with your 20 gal. hose-end sprayer.

1 can beer
1 cup ammonia
1/2 cup liquid dish soap
1/2 cup liquid lawn food
1/2 cup molasses or corn syrup

WEED CONTROL

The best time to destroy broadleaf weeds is mid-fall, between 1 p.m. and 3 p.m. on a bright sunny day when no rain is expected for 24 hours.

1. Spray your entire lawn with a solution of 1 cup liquid dish soap in your 20 gal. hose-end sprayer before using any liquid weed killer.
2. Apply liquid weed killer only to the weeds, not the entire lawn, and never under the weep line of trees. Broadleaf weed killers slow down the growth pattern of grass.
3. 7 days later, mix a small amount of weed killer in a handy sprayer-type bottle, and spot treat any weeds you missed or those that appear to not be affected.
4. Crabgrass and other annual weed seed plants should be killed with a pre-emerge crabgrass control (either liquid or dry) applied very early in spring.

MOWING

Always wear your golf shoes when you mow, fertilize, rake, trim, jog or otherwise set foot on your lawn.

1. Mow after 6 p.m.
2. Mow with a sharp, sharp blade.
3. Never mow wet grass.
4. Collect all grass clippings whenever possible.

SPRING & SUMMER CHECKLIST

5. Clean the undercarriage, chute and blade after using, and spray them with a non-stick pan spray.
6. Trim and edge before mowing.
7. Blow and collect excess grass and soil along trimmed edges.
8. Blow away or collect excess grass.
9. Do not allow excess grass to grow along walkways, driveways and flower beds or around trees, because this is where insects and disease begin and hide.
10. Spray your lawn area every other time after you mow with this tonic in your 20 gal. hose-end sprayer.

2 cups antiseptic mouthwash
1 cup liquid dish soap
4 tbsp. instant tea (dissolve first)

TRIMMING & EDGING

I have seen more hard-working, well-meaning homeowners make a mess out of an otherwise healthy lawn by not knowing (or caring) how they trimmed or edged around beds, walkways, trees and buildings.

1. Buy a well balanced, well built trimmer, and then learn how to properly use and maintain it. Use clean gasoline with the proper amount of oil added. Clean your machine after every use. Do not use this tool for pushing, pounding, prying, dig ging, or pulling.
2. Keep the line extended to its maximum at all times. The bump line extender needs only a gentle nudge, not an earth-shattering smash to let out an inch or 2 of line. Remember, your string trimmer cuts only with the last inch.

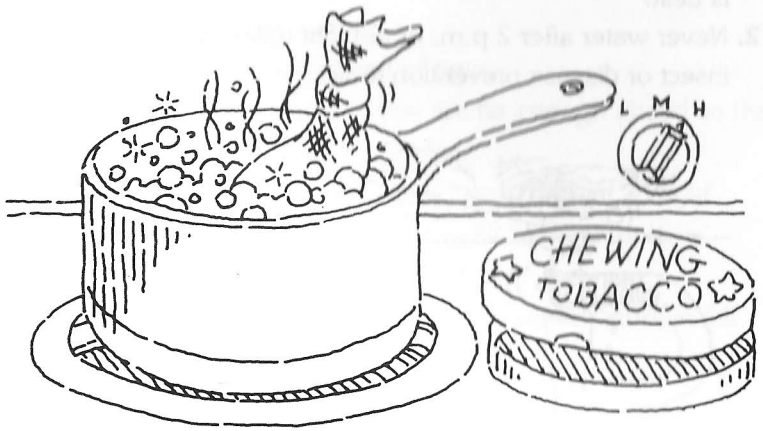
INSECT CONTROL

There are few, if any, insect problems that can't be prevented or stopped if you will follow a few simple maintenance steps and act quickly when trouble appears.

1. Always wear your golf shoes.
2. Apply liquid dish soap, 1 cup per 20 gallons of water, before you apply any insect controls.
3. Apply insect controls after 6 p.m.
4. Apply this monthly insect prevention tonic with your 20 gal. hose-end sprayer after you mow.

1 cup Fels Naptha Soap Solution
1 cup antiseptic mouthwash
1 cup chewing tobacco juice

5. When problems appear, use Dursban at the recommended rate.
6. There are several natural grub controls available, but Attack™ is about the best.
7. Remember, apply insect controls after sundown, and don't mow again for at least 3 days.



☒ SPRING & SUMMER CHECKLIST

DISEASE CONTROL

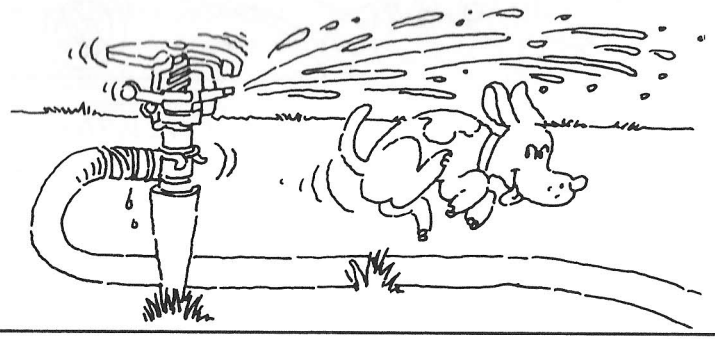
If you feed right, water right, aerate right (by wearing your golf shoes), and bathe often, you shouldn't have problems.

1. Mow after 6 p.m.
2. Feed before noon.
3. Kill weeds between 1 p.m. and 3 p.m. on a sunny day, and do not use weed killer on good grass.
4. Apply the monthly insect prevention tonic (for both insects and disease).
5. To stop and repair Fairy Ring and Fusarium Blight, apply 1 cup of "Tide®" or "All®" brand dry laundry detergent with your hand-held spreader set on the medium setting.
6. The most effective chemical controls are Benymol and Bayleton.

WATERING

Use a decent size garden hose, 3/4" or bigger, with an impulse sprinkler attached.

1. Water before 2:00 p.m.; anytime between 5 a.m. and 8 a.m. is best.
2. Never water after 2 p.m. or at night unless you are applying insect or disease prevention tonics.



SEEDING

New seeding should be done in mid-fall (mid-September to mid-October). Guess what? Wear your golf shoes when you are doing it.

1. Scuff up the soil with a rake. Lightly hand-seed spots. For large areas, use your hand-held broadcast spreader.
2. Store all seed in the refrigerator in a non-plastic, kraft paper bag.
3. Seed late in the evening.
4. Lightly cover all seed with professional mix (not peat moss).
5. Pat, press, or lightly roll the newly seeded area.
6. To speed up seed germination, add 1 cup of liquid dish soap per gallon of weak tea water per pound of seed, refrigerate for 48 hours, dry on your driveway, spread, cover, and pat.

SODDING

Prepare the soil like you were going to plant seed. And wear your golf shoes!

1. Apply 50 lbs. gypsum per 2500 square feet of area.
2. Apply 4 lbs. Epsom salts per 5000 square feet (set your hand-held spreader on a #1 setting).
3. Slightly dampen the soil ahead of time.
4. Water in new sod as soon as you are far enough ahead so that you don't get soaked by the sprinkler.
5. Start feeding 3 days later with liquid lawn food at 25% of the recommended rate added to my All Season Tonic.
6. Mow at the end of 7 days, after 6 p.m.
7. Feed with the dry lawn food and Epsom salts mixture in fall.

FIGHTING Drought

Hot, dry weather, following a wet spring, will raise havoc with your lawn. Symptoms are varied and numerous. Big, little and medium sized brown spots abound. Poor color, slow growth and severe yellowing after mowing are also common complaints. In the meantime, ornamental plants are yellowing or dropping their leaves.

To help correct these problems, you need to understand how they occur and how water can help.

All soil is basically alkaline, meaning it contains a good deal of strong chemical salts such as calcium. As salt concentration increases, it becomes more difficult for most plants to produce strong, new roots and top growth.

In many cases, these salts have caused the margins of leaves to "burn," turning them brown or black. This damage occurs when the salt solutions are taken up by the plants' roots and trans-located up to the leaves. Excess water then "escapes" from the leaf surface, but the salts stay behind in ever-increasing concentrations.

It's just like when you mix table salt with water in a saucer and let the water evaporate. The salt you originally mixed with the water is still in the saucer.

The best way to relieve these conditions is to use deep watering tools such as those tradenamed Ross Root Feeders or Gilmour Water Wands. To use them, **make holes 1 foot apart** under the weep line of trees, shrubs, and evergreens, or in a semi-circle around the troubled vines and ivies growing on houses. Push the root feeder as deep as it will go to break through the heavy, dry clay and soft sandstone layers in your sub-soil. This will open up drainage channels. Then completely surface flood the area around the plant to "flush" out excess salts as the excess water drains away and down through the soil.

These same high salt conditions also damage lawns, but the main problem here is not enough water.

The average lawn contains unbelievable amounts of grass roots. This mass of roots is in a constant state of growing, dying, decomposing and ...absorbing water. An equally astounding number of grass blades are busy using this water to manufacture new growth and to cool the plants so they won't overheat.

Nature's natural lawn plantings would have a plant population a hundred times less thick than your lawn. The amount of natural rainfall would pretty much determine how many and how close the grass plants would grow.

Since your lawn is an artificial planting, you must "artificially" supply the necessary water to keep all this hustle and bustle going.

Unfortunately, just putting the extra water on doesn't always do the trick. If your soil has become compacted, the water will run "off" instead of "in". There are several things you can do to break these "hard spots" open:

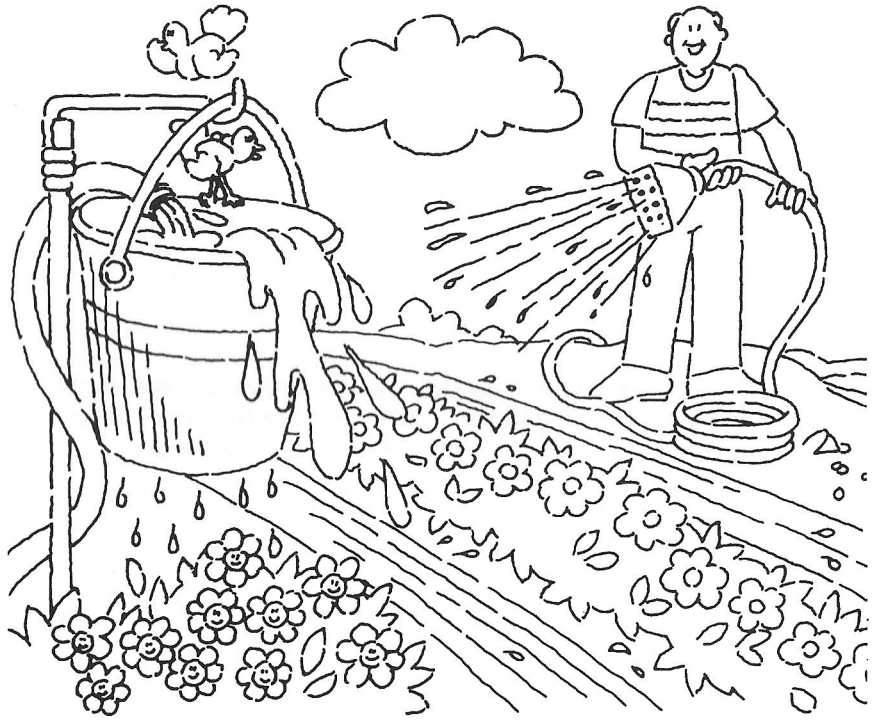
1. Fill your 20 gal. hose-end lawn sprayer with **1 cup of liquid dish soap** and warm water and bathe your entire lawn. This will remove surface tension and help the water penetrate the soil.
2. On slopes or next to sidewalks and driveways, the soil tends to dry out faster than in the "regular" part of the lawn. Water these areas more often during these high stress weeks. Try drip watering with a soaker hose for better results.

Areas that don't respond to additional water should be physically loosened up. Water aerators and spading forks or other similar tools that make holes in the turf will help to do this. If you remember my advice (actually nagging) and always wear your golf shoes whenever you are working on your lawn, you will help your lawn tremendously.

FIGHTING DROUGHT

In late summer, the nights start getting cooler and some of the heat pressure on your lawn lets up. As it does, the grass plants will be putting out new growth and many of the summer-damaged areas will fill in.

At that time, you can greatly accelerate the heating process by applying gypsum to your lawn. As the temperatures subside, apply **Epsom salts** at a rate of 3 lbs. per 2500 square feet (that's a #3 setting on your hand-held broadcast spreader). In the meantime, apply plenty of water to minimize the damage hot weather can cause.



FALL Care

The quality of next year's lawn depends on what you do in fall. Golf course and park superintendents put more of their effort into fall care than any other time of the year. Seed germinates faster and existing grass plants multiply faster in the fall than any other time of the year. Here's what to do:

DETHATCH

If your lawn is 3 years old and you haven't been following my advice all these years, then you must dethatch it. Use Thatch Buster,™ a dethatching rake, a special blade for your mower, or rent a power rake.

OVERSEED

Overseed your lawn with a good variety of Kentucky Blue Grass.

FEED

There are many schools of thought on the most popular formula, and they're often confusing! Apply any dry brand that offers you a good value at half the recommended rate. Water it in with this tonic applied with your 20 gal. hose-end sprayer.

1 can beer
1 cup liquid dish soap or baby shampoo
fill the balance of the sprayer jar with ammonia

FALL CARE

WEED CONTROL

Fall is the best time to control broadleaf weeds. Add 1 cup of **liquid dish soap** to your 20 gal. hose-end sprayer and fill the balance of the sprayer jar with warm water. Next, only spray the weedy areas with soapy water, wait a half hour and apply any broadleaf weed control. The soapy water will intensify the action of the weed killer.

INSECT CONTROL

Fall wins again. Insects sleep in the soil in winter and are most vulnerable now. Spray the infected areas with the warm soapy water solution. Be sure to spray under all trees and shrubs, wait half an hour, and then apply Dursban at the recommended rate.
This should be done before the ground freezes.

FALL MOWING

Cut your grass until it stops growing, then the drop the blade 1 notch, and mow 1 last time.

RAKING LEAVES

Never let fallen leaves cover the turf through winter. Rake them up, and add them to your compost pile.

NOTES

CONVERSION Table

MULTIPLY	TO OBTAIN
Feet by 30.48	Centimeters
Feet by .3048	Meters
Gallons by 3.785	Liters
Gallons Water by 8.3453	Lbs. of Water
Inches by 2.540	Centimeters
Meters by 3.281	Feet
Meters by 39.37	Inches
Miles by 1.609	Kilometers
Miles Per Hr. by 1.609	Kilometers Per Hr.
Millimeters by 0.03937	Inches
Ounces by 2	Tablespoons (Liq.)
Ounces by 6	Teaspoons (Liq.)
Ounces by 3	Tablespoons (Dry)
Ounces by 9	Teaspoons (Dry)
Tablespoons (Liq.) by 0.5	Ounces
Tablespoons (Dry) by 0.3333	Ounces
Temp (C) +17.78 by 1.8	Temp (F)
Temp (F) -32 by 5/9	Temp (C)

LIQUID VOLUME EQUIVALENTS

Gal.	Qt.	Pt.	Fl. Oz.	Cups	Tbsp.	Tsp.
1	4	8	128	16		
	1	2	32	4		
		1	16	2	32	
			1	1/8	2	6
				1	16	48
					1	3
						1

TURF MEASUREMENT

1 acre ..... 43,560 sq. ft.