JOIN THE LAWN CARE REVOLUTION!

THE NEW AMERICAN LAWN PLAN

by

Jonathan Green

AN ECOLOGICALLY RESPONSIBLE APPROACH TO LAWN CARE

GIFT COUPONS INSIDE!
GREAT LAWNS ARE AS EASY AS

U S A

Use my genetically superior Black Beauty grass seed to establish a new lawn or upgrade an existing lawn. This is the very important first step.

Stop soil compaction by using my Love Your Lawn - Love Your Soil soil enhancer to feed the soil microbes, making the lawn soil more alive and porous.

Adjust your lawn soil pH with MAG-I-CAL pelletized calcium and humate fertilizer. This soil enhancer will increase the ability of your grass plants to utilize nutrients in the soil.

BY GETTING THESE THREE FUNDAMENTAL ISSUES RIGHT, YOU WILL BE ON YOUR WAY TO GROWING YOUR OWN BEAUTIFUL BLACK BEAUTY LAWN.

The American lawn occupies a warm place in our hearts. The lawn is a spreading green carpet which provides the setting for our homes, our recreation and our relaxing times with family and friends. Therefore, my New American Lawn Plan gets back to the basics of lawn care in an environmentally sound and responsible way, creating a beautiful lawn for all seasons.

By following my New American Lawn Plan, you will be creating ideal conditions in the lawn soil where your Black Beauty lawn can thrive. You will soon learn that a healthy growing Black Beauty lawn is your best defense against lawn problems. You will also learn to “target” your use of products to control weeds, insects and fungus to where and when they may be needed. Please see pages 15 through 21 for more information on my New American Lawn Plan.

Sincerely,

Jonathan Green
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SHOW US YOUR LAWN!

SUBMIT A PHOTO OF YOUR LAWN FOR A CHANCE TO WIN JONATHAN GREEN PRODUCTS!

To enter the Jonathan Green “Show Us Your Lawn” photo contest visit NewAmericanLawn.com to upload a photograph of your lawn. While you are there be sure to sign up to receive our Timely Tips newsletter!

One winner will be chosen each month from March to October for a chance to win a $50 gift coupon to redeem for New American Lawn products at their Jonathan Green retailer. One grand prize winner will win a $500 gift coupon to redeem at their Jonathan Green retailer and New American Lawn products.

MONTHLY PRIZES & ONE GRAND PRIZE TO BE AWARDED!

SCAN TO ENTER OR VISIT NEWAMERICANLAWN.COM
EARLY SPRING  
(WHEN SEEDING)

PRIOR TO SEEDING, LOOSEN THE SOIL AND THEN APPLY BOTH OF THESE PRODUCTS

AND APPLY ONE OF THESE LAWN FERTILIZERS ON THE SAME DAY

New Seeding Lawn Fertilizer  
Black Beauty Organic Lawn Fertilizer  
Natural Beauty Organic Lawn Fertilizer

SEEDING INSTRUCTIONS

SUCCESSFUL SEEDING CAN BE ACCOMPLISHED IF THESE PROCEDURES ARE FOLLOWED FOR BOTH OVERSEEDING LAWNS AND ESTABLISHING NEW LAWNS.

1. PREPARATION: Good seed-to-soil contact is very important in order to improve germination of the planted grass seed.
   (a) If the lawn has not been mowed, do so before proceeding.
   (b) Remove dead grass and any debris and loosen the soil to be seeded by raking thoroughly, preferably with a de-thatching rake. Add additional topsoil if needed. In the case of larger areas, a rented de-thatching machine is helpful in order to create a seed bed. Seed should be applied to the loosened soil and then lightly raked into the ground, being careful not to bury the seed more than 1/4" deep.

2. Prior to seeding, apply the Jonathan Green products on this page in any order, on the same day.

3. Apply my Jonathan Green Green-Mulch Seed Establishment Mulch over the area in place of hay or straw especially if erosion and slopes are involved.

4. Seed bed should be kept moist for a few weeks while the grass seed germinates. Mow the new grass after it has reached a height of 2 to 3 inches.
Fact box: Growing a BLACK BEAUTY lawn is easier than you may think. Black Beauty lawn grasses are a breakthrough in turfgrass technology. Black Beauty turfgrasses can root four feet down into the soil over time. They are dark-green and contain endophytes for natural insect resistance. These grasses are uniform in texture and have a waxy leaf-coating, like the skin of an apple, making them more heat and drought tolerant. Grass seed will take longer to germinate during cool, wet spring weather.

CHOOSE A BLACK BEAUTY GRASS SEED MIXTURE THAT BEST FITS YOUR LAWN GROWING CONDITIONS

“Once you have seen a Black Beauty lawn, you will never forget it!”

Problem Solver

Crabgrass Preventer plus New Seeding Lawn Fertilizer

- Apply this product in the spring if you wish to control crabgrass and plant grass seed
- This product is a pre-emergent control
- Apply this product after seeding on the same day and water in
- A secondary application of crabgrass control 6-8 weeks later would be advantageous
- Use in place of New Seeding Lawn Fertilizer (see page 4)
**Fact box:** Soil is fundamental to the health of your lawn. In the spring, when the soil is still cold, the soil microbial life is somewhat inactive. Applying an organic lawn fertilizer at this time will provide a slow, gentle feeding, but not quick greening. This is a good time of the year to spread Green-Up Lawn Fertilizer, it is very effective in promoting new grass growth.

**APPLY BOTH OF THESE PRODUCTS**

MAG-I-CAL

Love Your Lawn - Love Your Soil

**AND APPLY ONE OF THESE LAWN FERTILIZERS ON THE SAME DAY**

Green-Up Lawn Fertilizer

Black Beauty Organic Lawn Fertilizer

Natural Beauty Organic Lawn Fertilizer

**Feeding the microbes**

By applying my Love Your Lawn-Love Your Soil a couple of times a year, along with my MAG-I-CAL and my other organic and traditional lawn fertilizers, you will be feeding and stimulating a vast array of soil life. It is all the soil life, including the earthworms, that are best able to make a lawn soil more alive and porous.

How Love Your Lawn - Love Your Soil improves the soil.
**Fact box:** To control crabgrass in the spring, an application should be made from early spring to late spring. My crabgrass control products provide control up to the three leaf stage of growth. Therefore, timing the application is not as critical. Crabgrass controls applied prior to April are mistimed in most areas. Crabgrass seed germinates only in sunny areas. Crabgrass does not grow in the shade. Use lawn fertilizer in shaded areas to reduce your use of pesticides on your whole lawn. It may be necessary to treat annually for crabgrass along the street curb, where ice melt products damage the lawn each winter. Also, crabgrass may germinate in stressed lawn areas such as along walkways, driveways and compacted soil areas due to heavy foot traffic and heat build-up transferring into the soil. Lawn edging can expose bare soil for crabgrass to establish, too.

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**Problem Solvers**

**Crabgrass Preventer plus Green-Up Lawn Fertilizer**
- Apply in spring for both pre and post emergent crabgrass control
- If crabgrass has been a continuing problem, use in place of Green-Up Lawn Fertilizer (see page 6)
- Contains Dimension™ weed control

**Crabgrass & Weed Preventer**
- Provides season-long crabgrass control with Dimension™ weed control
- Controls 30+ grassy and broadleaf weeds
- Can be applied as late as early-June and still provides effective control
- Use when you do not want to fertilize!

**TIP:** You may wish to apply after spreading or using an organic fertilizer.

**DO NOT SEED FOR 10 WEEKS AFTER APPLYING THESE PRODUCTS**

**BOTH OF THESE PRODUCTS CONTROL CRABGRASS BEFORE AND AFTER IT GERMINATES!**

**Organic Weed Control plus Fertilizer**
- Organic pre-emergence control of many grassy and broadleaf weeds including crabgrass and dandelions
- Contains Corn Gluten, feeds the lawn for 8 weeks
- Must be applied early in the spring as a pre-emergent, before crabgrass or broadleaf weeds germinate
- Safe to apply where children and pets play

**DO NOT SEED FOR 60 TO 90 DAYS AFTER APPLYING THIS PRODUCT**
Fact box: Now that the soil is warmer, this is a great time to feed your lawn with an organic lawn fertilizer. By feeding the soil life, you will be making your soil more alive and porous, allowing air, water and nutrients to reach down into the root zone. For a faster greening, use Green-Up Lawn Fertilizer.

APPLY ONE OF THESE LAWN FERTILIZERS

Black Beauty Organic Lawn Fertilizer

Natural Beauty Organic Lawn Fertilizer

Green-Up Lawn Fertilizer

OPTIONAL TIP

On average, apply Love Your Lawn - Love Your Soil about twice a year, unless the soil contains a lot of clay or is very compacted.

OPTIONAL TIP

IF GRUBS AND INSECT PESTS ARE A PROBLEM

Apply Grub & Insect Control from April through August (see page 11)

All of these products can be applied on the same day. For specific product information, refer to pages 16, 28, 29, 30.
**Problem Solvers**

**Crabgrass Preventer plus Green-Up Lawn Fertilizer**
- Apply in spring for both pre and post emergent crabgrass control
- If crabgrass has been a continuing problem, use in place of Green-Up Lawn Fertilizer (see page 8)
- Contains Dimension™ weed control

**Crabgrass & Weed Preventer**
- Provides season-long crabgrass control with Dimension™ weed control
- Controls 30+ grassy and broadleaf weeds
- Can be applied as late as early-June and still provide effective control
- Use when you do not want to fertilize!

**DO NOT SEED FOR 10 WEEKS AFTER APPLYING THESE PRODUCTS**

**Both of these Products Control Crabgrass before and after it germinates!**

**Fact box:** Crabgrass continues to germinate for approximately sixteen weeks, from spring through mid-summer. If crabgrass has been a real problem in the past and you have already applied a crabgrass preventer, consider a second application with one of my crabgrass control products listed below. Then apply, on the same day, Love Your Lawn – Love Your Soil. This winning combination will stimulate grass growth while eliminating later germinating crabgrass.

**Problem Solvers**

**Weed & Feed Lawn Fertilizer**
- Controls over 250 broadleaf weeds including dandelion, chickweed, plantain and clover
- 3-way action controls more weeds
- Provides slow-release nitrogen to promote healthy grass growth

**Lawn Weed Control**
- If you have already fertilized, apply to control over 200 broadleaf weeds including dandelion, plantain, clover and chickweed
- Apply only to areas where broadleaf weeds are present in the lawn
- Does not contain fertilizer

**DO NOT SEED FOR 4 WEEKS AFTER APPLYING THESE PRODUCTS**

**Fact box:** The key to successful broadleaf lawn weed control is that the control product must stick to the surface of the weed leaf. The weed leaf should be damp prior to application for maximum control. Apply to an early morning dew or lightly sprinkled lawn. Apply spring through fall when weeds are actively growing, only to areas where they are present, use lawn fertilizer on areas where broadleaf weeds are not present. Do not apply broadleaf weed controls when the temperature is above 85°F. Do not mow for 2 days prior or after application. Do not water or expect rain for 2 days after application.

**Do not apply during hot, dry weather when the lawn is under stress.**
Fact box: Summer is probably the most stressful time for lawns because of heat, humidity, drought, increased insect activity and fungal diseases. A gentle feeding with one of my organic fertilizers during summer months keeps your lawn healthy and growing. It also continues to build the health of the soil by encouraging the soil life.

**APPLY ONE OF THESE LAWN FERTILIZERS**

- **Black Beauty Organic Lawn Fertilizer**
- **Summer Survival Insect Control plus Lawn Fertilizer**
- **Natural Beauty Organic Lawn Fertilizer**

**OPTIONAL TIP**

On average, apply

Love Your Lawn - Love Your Soil
about twice a year, unless the soil contains a lot of clay or is very compacted.

**OPTIONAL TIP**

**IF GRUBS AND INSECT PESTS ARE A PROBLEM**

Apply

Grub & Insect Control from
April through August
(see next page)
**Fact box:** Insects are most active during the warmer summer months. Certain insects can be both harmful for your grass or a nuisance to people and pets, such as ants and deer ticks.

**Organic Insect Control**
For Lawns & Landscape Areas
- Kills and repels over 100 insects on contact
- Safe for use around children and pets
- Environmentally safe, non-toxic
- Patented blend of plant oils

**Fact box:** Grubs cause damage to lawns by eating the roots and stems of lawn grasses. Grubs are usually active from late spring to fall. Apply grub control products only in the sunny areas of the lawn, grubs are not usually found in the shady areas.

**Grub & Insect Control**
- Controls grubs and 25 other surface insects
- Systemic insecticide for use on lawns, flower beds and ornamentals
- One application kills grubs all season long
- Provides long lasting control
- Apply any time - spring through late summer
- Water in after application
- You may seed with this product

**APPLICATION TIMING CHART**

<table>
<thead>
<tr>
<th>FEB</th>
<th>MARCH</th>
<th>APRIL</th>
<th>MAY</th>
<th>JUNE</th>
<th>JULY</th>
<th>AUG</th>
<th>SEPT</th>
<th>OCT</th>
<th>NOV</th>
</tr>
</thead>
</table>

**GRUB LIFE CYCLE**

**Fact box:** Fungus usually becomes a problem on lawns during periods of stress, caused by high temperatures and humidity. Fungal diseases usually decline once cooler weather returns.

**Lawn Fungus Control**
- Use for both preventative and curative fungus treatments
- Controls Brown Patch, Fusarium Blight, Dollar Spot, Red Thread, Stripe Smut, 20+ diseases
- For best results, water in after application
- Repeat every 21 days if necessary

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**FOR SPECIFIC PRODUCT INFORMATION, REFER TO PAGE 30**
**Fact box:** Late summer to early fall is a great time to fertilize and seed your lawn. As the day length shortens, grass plants spread and thicken, putting down roots to survive the winter. Since a healthy, thick lawn is your best defense against weed invasion, consider seeding and feeding your lawn in the fall, around Labor Day. An additional feeding in late fall can also be beneficial for turfgrass growth and development.

**Apply one of these lawn fertilizers**

- Green-Up Lawn Fertilizer
- Winter Survival Fall Fertilizer

**OR**

- Black Beauty Organic Lawn Fertilizer
- Natural Beauty Organic Lawn Fertilizer

**And both of these products on the same day**

- MAG-I-CAL
- Love Your Lawn - Love Your Soil

*For specific product information, refer to pages 16, 19, 28, 29*
**EARLY FALL**
( WHEN SEEDING )

Fact box: In the fall, BLACK BEAUTY grass seed germinates quickly because the soil is warm, weed competition is reduced and normal rainfall patterns return. Weed and insect populations are greatly reduced during the fall season. Use my genetically superior Black Beauty grass seed mixtures for a new lawn or to overseed an existing lawn.

**CHOOSE A BLACK BEAUTY GRASS SEED MIXTURE THAT FITS YOUR LAWN GROWING CONDITIONS**

“Thank you so much! My lawn is looking amazing with your products!”

FOR SPECIFIC PRODUCT INFORMATION, REFER TO PAGES 16, 24, 25, 26, 28 13
Fact box: As the days shorten, the temperature declines and the leaves turn color, your lawn can thicken and become stronger, as it stores food for the winter months ahead. A late fall feeding, between mid-October to mid-November, can be most beneficial in this process.

APPLY BOTH OF THESE PRODUCTS ON THE SAME DAY

Winter Survival Lawn Fertilizer + MAG-I-CAL

FOR SPECIFIC PRODUCT INFORMATION, REFER TO PAGES 19, 29
It is a fact that the genetic quality, or adaptation of a living organism is of great importance. However, the genetic improvement, by means of classical plant breeding of turfgrasses, has only made substantial progress in the past fifty years.

Jonathan Green has developed truly innovative, darker-green turfgrasses in his own breeding program. Success cannot be achieved with your lawn without using superior grass varieties, such as my Black Beauty mixtures.

“Once you have seen a Black Beauty lawn, you will never forget it!”

1. Black Beauty turfgrasses can root four feet down into the lawn soil.
2. These grasses are genetically dark-green in color and contain endophytes for natural insect resistance.
3. Black Beauty turfgrasses are uniform in leaf texture and the leaf tips do not shred when mowed, as long as mower blade is sharp.
4. They possess a waxy coating, like the skin on an apple, making them more drought tolerant and better able to ward off disease.
5. Black Beauty grasses are used by sod growers across the USA.
Although soil may at first seem to be solid, only about half of the soil volume consists of solid material (mineral and organic); the other half consists of pore spaces filled with air and water. Of the solid material, typically most is mineral matter derived from the rocks of the earth’s crust, only about 5% of the volume, in an ideal soil, consists of organic matter.

Contained in water and water films in these pore spaces in the soil is an enormous population of microorganisms. An extremely complex environmental system of microbes and grass plant roots are interacting with each other in the upper layers of the soil. It has been estimated that there may be greater than four trillion organisms per kilogram of soil (2.2 pounds) and more than 10,000 different species in a single gram of soil! They play a tremendous role in a number of soil properties and processes.

Actually, the activities of microorganisms are responsible for the survival of all other organisms on earth, including humans. A few examples prove this point. Nitrogen is an essential part of most of the important molecules in plants and animals, such as nucleic acids and proteins. Nitrogen is also the most common gas in the atmosphere. Neither plants nor animals, however, can use nitrogen gas. Without certain bacteria that are able to convert the nitrogen in the air into a chemical form that plants can use, life as we know it would not exist on earth.

All animals including humans require oxygen to breathe. The supply of oxygen in the atmosphere, however, would be depleted in about twenty years,
were it not replenished. On land, plants are important producers of oxygen, but when all land and aquatic environments are considered, microorganisms are primarily responsible for continually replenishing the supply of oxygen in the atmosphere, by means of photosynthesis.

Tiny microorganisms, known as cyanobacteria, or blue-green algae, conduct photosynthesis using sunshine, water and carbon dioxide to produce carbohydrates and oxygen. In fact, all the green plants on earth incorporate symbiotic cyanobacteria, (known as choroplasts,) to do photosynthesis for them.

Microorganisms also break down a wide variety of materials that no other forms of life can degrade. For example, the bulk of the carbohydrate in land plants is in the form of cellulose, which humans and most animals cannot digest. Certain microorganisms can, however. As a result, leaves, trees and all organic matter is recycled to be used again to sustain new life and growth.
Grass plant roots use specific organic secretions to attract and feed these microorganisms. Organic materials are created as grass plants capture carbon, as carbon dioxide from the air, and combine that carbon with hydrogen from water. This process is called photosynthesis (making things from light). This process takes place in the blades of grass, energy from the sun provides the power. The result is a concentration of organic compounds and inorganic elements, from the soil, essential for grass plant growth in the upper layers of the soil. The microbial populations are recycling organic residues in the soil, releasing the trapped energy they contain to be used again by grass plants. They are also largely responsible for releasing mineral nutrients into the soil water solution from the very finely divided rocks that constitute most of the soil mass.

There is a direct relation between the quantity of organic material in the soil and the number of microorganisms in the soil. It is at this fundamental level that complex and mostly poorly understood interactions are occurring, that provide grass plants with resistance to disease, insects and environment stresses.

**Love Your Lawn - Love Your Soil**

- Helps loosen heavy, compacted soils
- Releases “tied-up” nutrients in the soil
- Contains humic and fulvic acids, calcium, sulfur, iron and molasses - helps make the soil more alive and porous
- Enhances grass root development and root mass development
- Environmentally friendly; safe for people and pets
- Use on cool and warm season grasses
- Increases resistance to drought and heat stress
- Helps kick-start your lawn in the spring
- Homogenous formula - applies easily with any spreader
- Assists in preventing fungus
An ecologically responsible approach to lawn care

GREAT LAWNS ARE AS EASY AS USA

Adjust your lawn soil pH with MAG-I-CAL
pelletized calcium and humate fertilizer.
This will increase the ability of your grass plants to utilize nutrients in the soil.

Understanding Soil pH (potential Hydrogen)

Soil clay particles and organic matter, humus, carry a weak, negative electrical charge on their surfaces. Mineral nutrients such as: calcium, magnesium, phosphorus and potassium carry a positive charge, which enables these minerals to attach to the surfaces of negatively charged clay and humus particles. It therefore must follow that the more clay and organic matter present in the soil, the greater will be the soils’ capacity to hold mineral nutrients.

Grass roots are negatively charged, which aids the grass roots in attracting mineral nutrients, through the soil water solution. It is by this means that lawn grass plants obtain the mineral nutrients to create their living structures.

If it wasn’t for the operation of this weak electrical charge in holding mineral nutrients on the surface of clay and humus particles, the mineral nutrients would be quickly leached away by water.

Why would my lawn be acidic or need lime?

All fertilizers that are applied to lawns are acidic, whether they are organic or chemical. The processes of decay in your lawn soil, caused by the activity of microbes, produces organic acids containing hydrogen. Therefore, the lawn soil will be tending toward acidity overtime.

What is meant by the term “pH” (or potential Hydrogen)?

pH is a measure of the quantity of hydrogen present in the soil. As the amount of hydrogen in the lawn soil increases, the soils’ pH reading decreases, thus becoming more acidic. Hydrogen carries a weak positive electrical charge which
enables it to attach to negatively charged sites on the clay and humus particles in the soil. Therefore these negatively charged sites become clogged with positively charged hydrogen; thus the mineral nutrients are not able to attach to these same sites.

**How does MAG-I-CAL raise lawn soil pH?**

As MAG-I-CAL dissolves in the water in the lawn soil, the hydrogen that is attached to the clay and humus particles reacts with the calcium carbonate contained in MAG-I-CAL to form carbon dioxide and water. The result is that the exchange sites are cleared of hydrogen and the soil becomes less acidic or has a higher pH reading. MAG-I-CAL is a 35% completely soluble calcium source.

**What does the pH scale mean as it relates to lawn soil?**

Soil pH is an indicator of soil acidity or alkalinity, which is caused by the amount of hydrogen held on the exchange sites. It is expressed by a scale of 0 to 14. Therefore a 7 would be a neutral reading, below 7 would be an acidic reading, and above 7 would be an alkaline or base reading. Lawn grass thrives best in readings of between 6.0 and 6.8.

Seemingly small changes in pH readings can mean big changes for lawn grass plants. That is because the pH scale is logarithmic not arithmetic. This means that a pH reading of 5 is ten times more acidic than a pH reading of 6, and one hundred times more acidic than a pH reading of 7, and so on.

**Soil pH Range**

<table>
<thead>
<tr>
<th>pH Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 5.9</td>
<td>Acidic</td>
</tr>
<tr>
<td>6.0 to 6.8</td>
<td>Ideal for Lawns</td>
</tr>
<tr>
<td>7.0 to 14</td>
<td>Alkaline</td>
</tr>
</tbody>
</table>

- If pH is 6.0 - 6.4, apply MAG-I-CAL once a year
- If pH is 5.6 - 5.9, apply MAG-I-CAL in the spring and fall
- If pH is 5.1 - 5.5, apply MAG-I-CAL every other month until pH is above 5.5, then follow above suggestion
- If pH is 5.0 or below, apply MAG-I-CAL at 1.5 times the regular rate for three consecutive months. Two weeks after the third application, test pH then adjust application schedule accordingly.

**Soil pH Test Kit**

- Easy, do-it-yourself kit to determine what your soil will need for ideal growing conditions for a healthy lawn
- Includes desirable pH ranges and instructions on adjusting soil pH levels for lawns
- Get results in 5 minutes
- Only 99¢ - a great bargain!
An additional consideration: subsoil acidity!

Even if the top six inches of the lawn soil shows a pH reading of above 6.0, the subsoil may be very acidic, with a much lower pH reading. When subsoil pH readings drop below 5, aluminum and manganese in the soil become much more soluble in water. This can create a toxic condition for lawn grass plants, which will inhibit their growth and health. Since lime penetrates most lawn soils at the rate of about one inch per year, the necessity of a long term liming program becomes apparent in the development of a vigorous, deeply rooted lawn that can withstand heat and drought stresses.

The importance of calcium in lawn soil - remember MAG-I-CAL is a 35% calcium source

Calcium is present in most soils. It makes up about 3.6% of the earth’s crust. Calcium is essential for many grass plant functions. Some of them are:

- Proper cell division and elongation
- Proper cell wall development
- Nitrate uptake and metabolism
- Enzyme activity
- Starch metabolism

However, much of the free calcium forms nearly insoluble compounds with other elements, such as phosphorus, making both elements less available. Even in alkaline soils, with high sodium content, the sodium competes with the calcium, reducing both elements availability. Calcium is not very mobile in the soil, or in lawn grass plant tissue, therefore a continuous supply is essential for the development of a healthy, attractive lawn.

<table>
<thead>
<tr>
<th>SOIL ACIDITY</th>
<th>FERTILIZER WASTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5 pH</td>
<td>71%</td>
</tr>
<tr>
<td>5.0 pH</td>
<td>54%</td>
</tr>
<tr>
<td>5.5 pH</td>
<td>33%</td>
</tr>
<tr>
<td>6.0 pH</td>
<td>20%</td>
</tr>
<tr>
<td>6.5 pH</td>
<td>0%</td>
</tr>
</tbody>
</table>

Soil pH

Before starting any lawn care program, a soil test should be performed to determine your soil’s pH level. Apply MAG-I-CAL to reach a desirable pH level. When soil has a pH level between 6.0 to 6.8, lawns thrive and the occurrences of weeds are reduced. Weeds thrive in acidic soil with a pH below 6.0. You may apply MAG-I-CAL during the growing season and also while applying any other lawn products.
The mineral and organic constituents of the soil, along with air and water, are inextricably intertwined. Lawn grass plants make no distinction between nutrients derived from organic or inorganic sources.

Nitrogen is one of the most widely distributed elements in nature. It is the most abundant gas in the atmosphere. Nitrogen is not found in mineral forms like phosphorus and potassium, but is largely present in organic compounds in the soil.

Nitrogen is essential for metabolic processes in plants and animals. The best known role of nitrogen is in forming amino acids, which are the building blocks of proteins.

The soil forms a thin covering over much of the Earth’s surface. It is a complex material consisting of minerals (derived from rock), water, gases and organic matter in various stages of decomposition. In this complex mixture live an astonishing number and variety of organisms, mostly microscopic. These organisms contribute to the soil’s formation, while using the soil as a habitat and a source of energy. These organisms are also recycling energy, nitrogen, to be used by green plants to promote their growth. They are also capturing atmospheric nitrogen that is used by lawn grass plants.
In the early twentieth century, two German scientists, Haber and Bosch, developed a process for synthesizing nitrogen from atmospheric nitrogen gas, creating ammonia. This ammonia made it possible to manufacture nitrogen fertilizers.

It must be realized, however, that elemental nitrogen is the same element however it is produced. The reason we want to include organic fertilizers in our lawn feeding program is that organic fertilizers feed the soil’s microbial populations, which in turn release the nutrients to the grass plants. Synthetic sources of nitrogen largely bypass the life in the soil because they are water soluble and readily absorbed by grass roots. By feeding the microbial populations in the soil, you are making the soil more alive and porous.

In reality it is the control products - weeds, insect, fungus, etc. - that are the chief concern of people who want to use organic products exclusively on their lawns. Years ago these concerns would have been more valid. However, the products currently available to control weeds, insects and fungus have a very low environmental impact when used according to label directions. What’s more, in many instances, it is the only effective means of control available. By following my New American Lawn Plan, you will be targeting your use of control products to where and when they may be needed.

“My lawn has never looked this good in July, it’s usually wiped out by now from the heat.”

“My old lawn did not survive two summers of drought. I removed the old, dead grass then spread Mag-I-Cal, Love Your Lawn - Love Your Soil and New Seeding Lawn Fertilizer. Finally, I seeded with Black Beauty Ultra. I couldn’t be happier with the results!”
WHAT ARE GRASS SEED ENDOPHYTES? WHY ARE THEY IMPORTANT?
Endophytes are beneficial funguses that are involved in a symbiotic relationship with lawn plants. They produce defensive chemicals called alkaloids that deter certain insects. One effect of these alkaloids is that the plants taste bad. The type of insects repelled by endophytes are typically chinch bugs, bluegrass billbugs and sod webworms. Seeding with endophytic grass seed mixtures is a key step to improving your lawn. It helps reduce the need for pesticides, allowing you to “Go-Green”.

Jonathan Green Black Beauty grass seed mixtures contain endophytic, naturally insect resistant grasses. Look for this icon on our bags.

Magnification 1000x of plant cells. The endophytes are the squiggly lines between the cells.

Black Beauty™ Mixture
- Contains three exceptionally dark-green Black Beauty Fescues
- Grows well in sunny and shady areas and in many different soil types
- Provides a more vigorous and drought/heat tolerant lawn that looks like Kentucky bluegrass
- Grass roots can grow up to four feet deep
- Planted by leading sod growers across the USA!
- Contains endophytes for improved insect resistance

Black Beauty™ Ultra Mixture
- Contains three Black Beauty Fescues, with a New Frontier Perennial Ryegrass and Blue Panther Kentucky Bluegrass
- Rhizoming root system will help to fill in bare spots
- Use for faster establishment
- Contains endophytes for improved insect resistance

Black Beauty™ Full Sun Mixture
- Provides a lawn of the highest quality in sunny areas
- Contains exceptionally dark-green Black Beauty Fescues
- Contains endophytes for improved insect resistance
**Black Beauty™ Sun & Shade Mixture**
- Grows well in sun and partially shaded areas
- Wide adaptability and elite varieties make this our most popular mixture
- Contains exceptionally dark-green Black Beauty Fescues
- Contains endophytes for improved insect resistance

**Black Beauty™ Dense Shade Mixture**
- Performs well in shady areas, especially dry shade
- Better resistance to drought, insects and disease
- Contains exceptionally dark-green Black Beauty Fescues
- Contains endophytes for improved insect resistance

**Black Beauty™ Shady Nooks™ Mixture**
- Formulated to survive in damp or dry-shady areas
- Our most shade tolerant mixture
- Contains Poa Trivialis, Hard Fescue and Black Beauty Fescues which are adapted to thrive in the shade
- Grows in shady areas and dry soils where other mixtures fail
- Contains endophytes for improved insect resistance

**Black Beauty™ Ultra Lawn Repair Made Easy**
**SEED - FERTILIZER - MULCH COMBINATION**
- Repairs bare spots in the lawn
- Use on new lawns or when re-seeding
- Contains endophytes for improved insect resistance
**Black Beauty™ Fall Magic™ Mixture**
- Specially formulated for successful fall seeding
- Use on established lawns or to start new lawns
- Repairs summer damage and provides an attractive, thicker, greener lawn
- Use in sun and shade areas
- Contains endophytes for improved insect resistance

**Black Beauty™ Heavy Traffic™ Mixture**
- Use where children and pets play
- A mixture of Black Beauty Fescues and a New Frontier Perennial Grass
- Offers good abrasion resistance and fills in bare spots fast
- Contains endophytes for improved insect resistance

**Touch-Up™ Blend**
- Contains three elite, fast establishing Perennial Ryegrasses
- Touch-Up™ bare spots or overseed your entire lawn
- Golf course quality blend
- Contains endophytes for improved insect resistance

**Sod Maker™ Blend**
- Establishes a sod quality Kentucky Bluegrass lawn from seed
- Improve an existing lawn into “sod-like” quality
- Contains four improved Kentucky Bluegrasses grown by sod growers across the USA!

**Fast Grow Mixture**
- Provides a hardy lawn quickly in sun and shade
- Use this seed mixture where the fastest results are required
- Germinates in just 10-14 days
SPREADERS
My durable lawn spreaders are designed for fast and accurate applications. They include settings for all of my Jonathan Green Products. Spreader settings can be found at jonathangreen.com

“Green-Meter” Rotary Spreader
- Foam grip handle
- Large 12” wheels
- Hopper holds up to 10,000 square feet of material

“Elite-Green” Rotary Spreader
- Foam grip handle
- Large 10” pneumatic wheels
- Self-lubricating metal gears
- Finger tip cable control
- Hopper holds up to 10,000 square feet of material

“GO-GREEN” Rotary Spreader
- Grip handle
- Large 8” poly wheels
- Hopper holds up to 10,000 square feet of material
- Self-lubricating nylon gears

“Green-Meter” Drop Spreader
- Foam grip handle
- 18” wide with large wheels
- Hopper holds up to 10,000 square feet of material

Hand Spreader
- Use for grass seed, fertilizers, ice melters, etc.
- Rust and corrosion resistant Polypropylene
- Built to last - heavy duty!
- Use on lawns and gardens
- Easy on-off flow rate adjuster

“Black Beauty” Pro-Green Spreader
- Direct rod control
- 15” treded turf tires
- Metal gears with grease fitting
- Wire mesh filter
- Comes with rain cover
- Capacity 130 lbs.

SPREADER PATHS

Broadcast Spreader Path
For best results, apply in a circular pattern starting on the outside and working toward the center. A little overlap of product will ensure complete coverage.

Drop Spreader Path
First, apply 2 border strips along the edge of each end of the lawn, overlapping slightly and shutting off the spreader before turning as you reach the edge of the border strips.
**Crabgrass Preventer plus Green-Up Lawn Fertilizer**
- Feeds your lawn - controls crabgrass
- Controls crabgrass before and after it germinates
- Provides 25% slow-release Nitrogen, No-phosphorus formula
- Clear, odorless, non-staining
- Can be applied up to early summer in a split application program
- Contains Dimension™ weed control
- Delay seeding for three months after application

**Crabgrass Preventer plus New Seeding Lawn Fertilizer**
- Provides crabgrass control and nutrients to get newly planted grass seed off to a great start
- Allows seeding on the same day
- Provides 30% slow-release Nitrogen
- Apply last after the grass seed has been planted, then do not disturb the seed bed
- Contains Tupersan™ weed control

**Green-Up™ Lawn Fertilizer**
- A great fertilizer for the early and late growing season, when the soil is cold
- Iron and Sulfur add deep-green color
- Feeds for 8-10 weeks
- Provides 40% slow-release Nitrogen
- Contains humates which stimulate the soil’s microbial life
- No-phosphorus formula
- You may seed with this product

**Natural Beauty™ Organic Lawn Fertilizer**
- Rich in humates that help to restore soil life
- Provides excellent turf nutrition for 8 to 10 weeks
- No-phosphorus formula
- Does not contain manures or bio-solids
- Safe to use around children, pets and pastures
- Feeds the beneficial microbes in the soil
- Provides 40% slow-release Nitrogen
- You may seed with this product

**New Seeding Lawn Fertilizer**
- Use when seeding, over-seeding or sodding
- High phosphorus formula helps build a vigorous root system
- Gets new grass plantings off to a fast start for a thicker, greener lawn
- Contains iron for deep greening
- Provides 30% slow-release Nitrogen
- Contains humates for root development
Black Beauty Organic Lawn Fertilizer
- Great for establishing new seedings
- Complex, organic lawn fertilizer that stimulates grass roots, stems and leaves
- Contains humates to rejuvenate tired, sick lawns
- Contains Hydretain®, works like tiny water magnets to attract water droplets to the root hairs of grass plant, saving up to 25% on water bills
- Does not contain manures or bio-solids
- Safe to use around children, pets and pastures
- Use in spring, summer or fall, feeds for 8 to 10 weeks
- You may seed with this product

Organic Weed Control plus Fertilizer
- Unique corn-gluten technology prevents crabgrass, dandelions and over 20+ grassy and broadleaf weeds from germinating
- Feeds and greens the lawn organically, pesticide free
- No-phosphorus formula
- Provides 90% slow-release Nitrogen
- Does not contain manures or bio-solids
- Safe to use around children, pets and pastures
- Do not seed for 60-90 days after applying this product
- Does not control existing lawn weeds, apply prior to target weed germination

Summer Survival Lawn Fertilizer
- Controls a wide spectrum of insect pests including Chinch Bugs, Armyworms, Ticks, Ants, 15+ other insects
- Provides 40% slow-release Nitrogen
- Gives the lawn a gentle feeding during summer months to keep lawns greener
- No-phos formula, great for lake & bay communities
- Do not apply during hot, dry weather when the turf is under stress
- You may seed with this product

Weed & Feed Lawn Fertilizer
- Controls over 250 broadleaf weeds including dandelion, chickweed, plantain and clover
- Provides slow-release nitrogen to promote healthy grass growth
- No-phosphorus formula
- Provides 35% slow-release Nitrogen
- After applying, do not seed for four weeks after application

Winter Survival Lawn Fertilizer
- Fall & winter feeding formula keeps your lawn greener later into the year
- Provides a well balanced formula, ideal for winter turf protection
- Iron and Sulfur helps keep the lawn a deep-green color
- “True” fall/winter formula - promotes root growth and storage of nutrients for spring
- Contains humates for root development
- No-phosphorus formula
- Provides 30% slow-release Nitrogen
- You may seed with this product, ideal to use with a fall seeding
Crabgrass & Weed Preventer
- Provides season-long crabgrass control
- Controls 30+ grassy and broadleaf weeds
- Can be applied as late as early-June
- Controls crabgrass before and after it germinates
- Delay seeding for 4 months after application
- Contains Dimension™ weed control, clear, odorless, non-staining

Lawn Weed Control
- Use anytime of the year when weeds are actively growing, spring through fall
- Improved formula with Trimec® 3-way technology provides broadleaf weed control of 200+ lawn weeds including dandelion, clover, chickweed, common purslane, etc.
- DOES NOT CONTAIN FERTILIZER, use when you want to control weeds without fertilizing
- Delay seeding for 4 weeks after application

Lawn Fungus Control
- Use for both preventative and curative fungus treatments
- Repeat every 30 days if necessary
- Controls Brown Patch, Fusarium Blight, Dollar Spot, Copper Spot, Red Thread, Stripe Smut, Pink Snow Mold, 20+ diseases
- You may seed with this product

Grub & Insect Control
- Controls grubs and surface feeding insects - over twenty-five insects
- One application kills grubs all season long
- Provides long lasting control, water in after application
- Apply any time - spring through late summer
- You may seed with this product

Organic Insect Control for Lawns and Landscape Areas
- Kills and repels over 100 insect pests
- Uses a patented blend of organic plant oils which works by blocking specific neural pathways called Octopamine Receptors that only exist in insects
- Mammals, birds and fish do not have Octopamine Receptors, so there is no adverse effect on them and is safe and effective
- You may seed with this product

Lawn Moss Control
- Kills moss quickly
- Contains iron, which greens up your lawn
- Do not seed for 14 days after application
## Lawn Problems

<table>
<thead>
<tr>
<th><strong>Weeds</strong></th>
<th><strong>Insects</strong></th>
<th><strong>Fungus</strong></th>
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<tbody>
<tr>
<td>Crabgrass</td>
<td>Grub</td>
<td>Red Thread</td>
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<tr>
<td>Goosegrass</td>
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<td>Leaf Spot</td>
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<tr>
<td>Dandelion</td>
<td>Flea</td>
<td>Stripe Smut</td>
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<tr>
<td>White Clover</td>
<td>Ant</td>
<td>Dollar Spot</td>
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<tr>
<td>Chickweed</td>
<td>Chinch Bug</td>
<td>Brown Patch</td>
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<tr>
<td>Plantain</td>
<td>Sod Webworm</td>
<td>Snow Mold</td>
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Shaded areas are not ideal for growing lawns for the following reasons:

The grass needs sun light to manufacture food by means of photosynthesis in order to support healthy growth. If a tree is causing the shade, it is competing with the grass for nutrients and water. Shady areas are less able to tolerate wear from recreational use or play because the grass is not as vigorous.

Moss may also become a problem in the shade because it prefers shade and compacted soil. Poor drainage and soil acidity favors moss growth and will make matters worse for the grass plants.

Establishment and maintenance considerations for lawns in the shade:

Use shade tolerant grass seed mixtures such as Jonathan Green Shady Nooks or Dense Shade.

Soil compaction is usually a problem under trees. Tree feeder roots are absorbing tons of water per day from the upper layer of soil. Jonathan Green Love Your Lawn - Love Your Soil loosens the soil and feeds the microbes very effectively. It should be applied at least twice per year. Core aerating along with organic top dressing is very desirable before applying Love Your Lawn- Love Your Soil.

The soil pH is usually low in shaded areas; use Jonathan Green Mag-I-Cal to raise the pH levels to between 6.0 and 6.8.

Use Jonathan Green Black Beauty Organic Lawn Fertilizer or Natural Beauty Organic Lawn Fertilizer. By applying these organic products, you will be assuring a steady food supply for the grass.

TIPS

If after repeated attempts you have failed to grow grass in the shade, even in areas that receive no foot traffic, consider the following plan.

Split the distance from the trunk of the tree to the drip line of the leaf canopy. In the area closest to the tree trunk establish an attractive naturalized bed of ground cover plants that thrive in shady areas. Plant spring flowering bulbs in this bed for an attractive spring display. If possible, selectively prune the tree to allow more light to reach the ground and improve air circulation.
The Environmental Benefits of Lawns

- Lawns produce oxygen. A 50 ft. x 100 ft. lawn (5,000 square foot lawn) produces enough oxygen for a family of eight per day.
- Lawns trap dust and absorb pollutants, such as carbon dioxide and sulfur dioxide, making the air fit to breathe.
- Lawns effectively control soil erosion by water, while purifying the water before it passes into the underground water supply.
- Lawns cool the immediate environment, saving on air conditioning costs.

Under my New American Lawn Plan, all of these benefits can be achieved, while greatly reducing your use of water and control products.

General Lawn Care Tips

**Watering Tip:** A total of one inch of water per week, including rainfall, is desirable. Watering deeply two or three times a week in the morning for 30-45 minutes, when necessary, is most beneficial for your lawn, encouraging deep root growth. Avoid frequent watering for short periods of time and avoid watering at night, which promotes lawn disease outbreaks.

What do the numbers on a fertilizer bag mean?

The numbers on a fertilizer bag represent the percentage of Nitrogen, Phosphate and Potash in the product which is essential to promote a healthy root system and a dark-green color in your lawn.

**HOW TO DETERMINE YOUR LAWN’S SQUARE FOOTAGE**

```
12 18 8
NITROGEN For a Dense Green Lawn
PHOSPHATE Improves root growth
POTASH Vital for growth & drought resistance
```

To determine how much you need, multiply the length of your lawn by its width. This equals your total square footage. Deduct any non-lawn areas (house, gardens, etc.)

**MOWING GUIDE**

Do not mow your grass too short.

A height of 3 to 3 1/2 inches works best for a healthy lawn by preventing disease and shading the soil to inhibit weed seed germination. Raise the mowing height during summer months. Lawns that are mowed higher require less watering and establish a deeper root structure. Keep your mower blade sharp so that you do not “shred” your grass, making it vulnerable to disease. Do not mow wet grass. Do not cut more than 1/3 of the grass blade. Mow regularly, usually once a week or as necessary. Rotate your mowing patterns. Leave grass clippings on the lawn if possible, as long as they are not in clumps, to decompose and return nutrients and water back into the soil. Mulching mowers work very well and are designed to finely shred clippings. Clippings do not promote thatch.
Be aware of state or local ordinance requirements concerning lawn fertilizers. They may limit or prohibit fertilizer applications from late fall to early spring in your area.

Keep fertilizers out of reach of children and pets. Do not apply near water, storm drains, or drainage ditches. Do not apply if heavy rain is expected. Apply fertilizer only to your lawn or garden and sweep any product that lands on the driveway, sidewalk or street back onto your lawn or garden. Also, sweep fertilizer off concrete surfaces to avoid possible staining.
My Pledge Of Satisfaction:
We have made every effort in the formulation of these products to insure that you will be satisfied with the results. If, for any reason, you are not satisfied, please write and describe the problem. Our lawn and turf specialists will make every effort to assure your success.

www.jonathangreen.com

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- Downloadable Gift Coupon Mail-In Forms
- Spreader settings for various spreader brands
- FAQ section and resource library
- Details on state fertilizer laws
- How-To Lawn Videos
- Helpful links
- Over 100 articles on lawn and garden topics and tips
- Family history and our commitment to the community
- More interactive features such as product reviews
YOUR PERSONAL LAWN CARE PROGRAM

Use this log to keep your own records. A good program depends on accurate timing and scheduling of applications. Keeping good records = better results!

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