CLEAN AIR®
LAWN CARE

CHANGING THE WAY AMERICA MOWS THE LAWN®

Sustainable Lawn Care Practices

Chris Hogan

“A sustainable landscape is a planned and managed system of green spaces, greenways, recreational lands, parks in combination with natural lands that offer benefits of water conservation, filtration and adsorption, as well as air particle removal and heat relief. Sustainable landscapes also contribute to the health and quality of life to people, communities and entire countries”. – Ronald G. Dodson

THE FACTS:

There are

58 million

lawns in the United States

Over

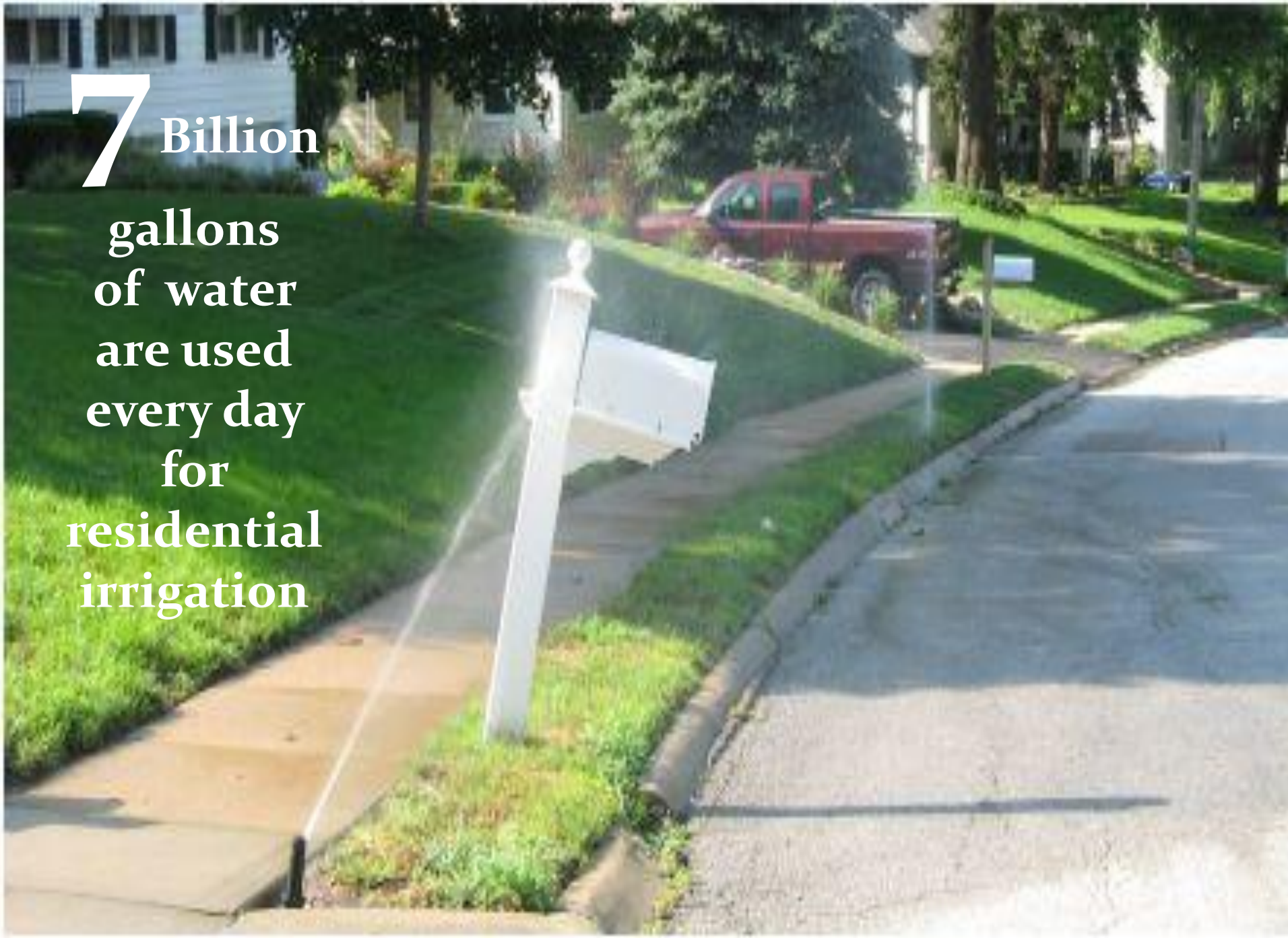
$30

Billion

dollars are spent on lawn care each year

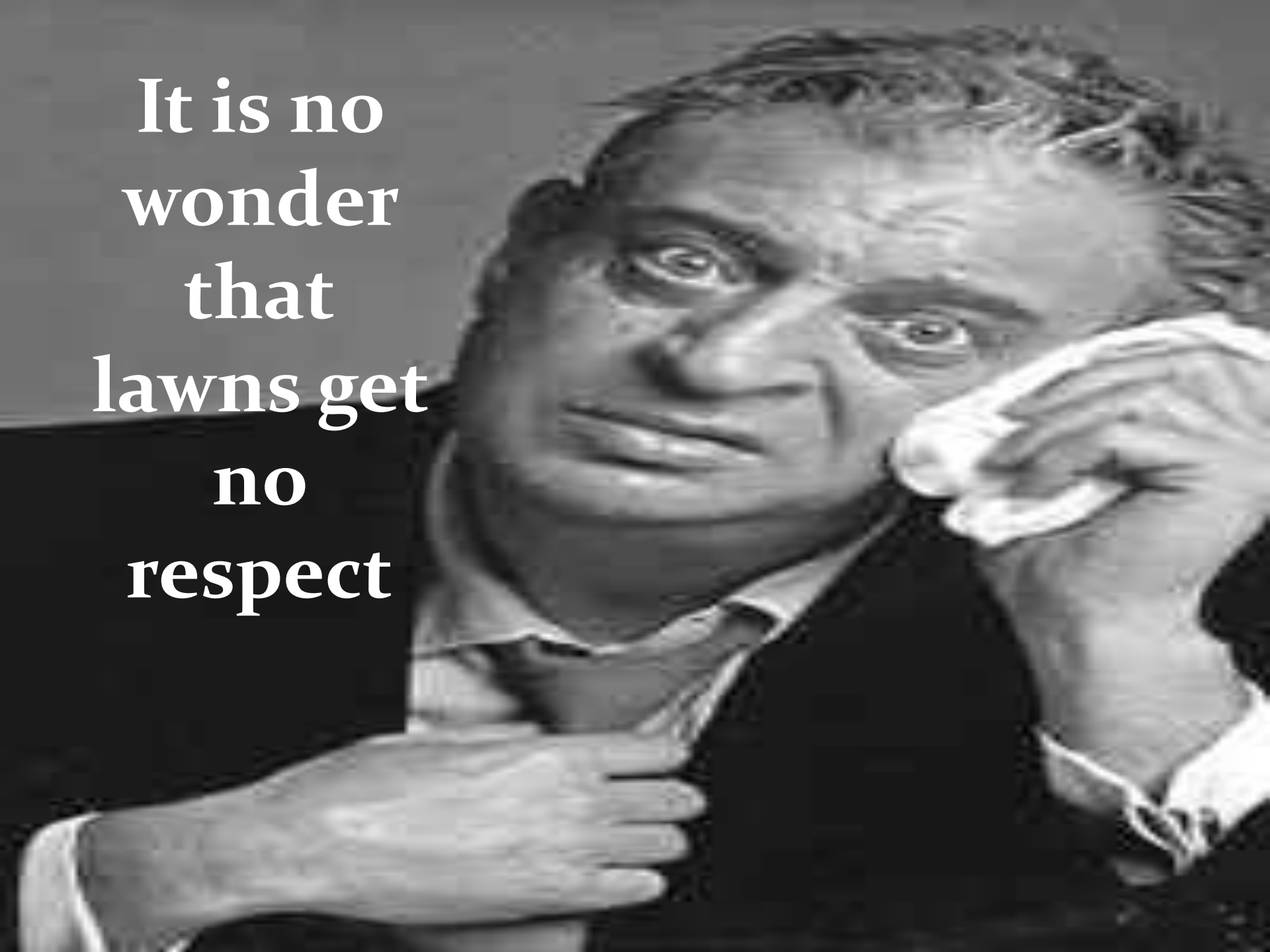

3 Million tons
of chemical
fertilizers
are spread
on lawns
each year

80 million pounds of pesticides are applied


7 Billion
gallons
of water
are used
every day
for
residential
irrigation

17 Million gallons of gasoline are spilled annually filling lawn mowers


5-10% of the nation's
air pollution is produced
by gas lawn equipment
STIHL


It is no wonder that lawns get no respect


WHAT IS THE SOLUTION?


Rock Lawns


Vegetable Gardens?


Clean Air Lawn Care is
changing the way America
mows & feeds our lawns

The Benefits of Clean Air Lawn Care's Sustainable Organic Lawns

Lawns are a fantastic play area for children & pets

Lawns help to remove CO_2 from the atmosphere

Lawns cool the air and reduce ambient temperature

Lawns remove dust, pollutants and particulate matter from the air and water (up to 12 million tons per year)

Lawns significantly reduce noise pollution in urban areas

Top 10

things you can do to eliminate the damage that traditional lawn care practices have on the environment.


1. Educate customers
on reducing the size of their lawns


2. Grow the right Grass

Types of Grasses for Your Region

Region 3
Grasses from Region 1 can be grown here if irrigated. Otherwise, wheatgrass and buffalo grass.

Region 1
Kentucky bluegrass, perennial rye, bentgrass, fescue

Region 5
Kentucky bluegrass, perennial rye, bentgrass, fescue.

Region 4
Bermuda and zoysia grass. Kentucky bluegrass can be grown in cooler altitudes.

Region 2
Bermuda, zoysia, centipede grass; St. Augustine grass in certain areas.

3. Get a Soil Test

A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736

REPORT NUMBER: 08-325-049 CLIENT NO: 99999

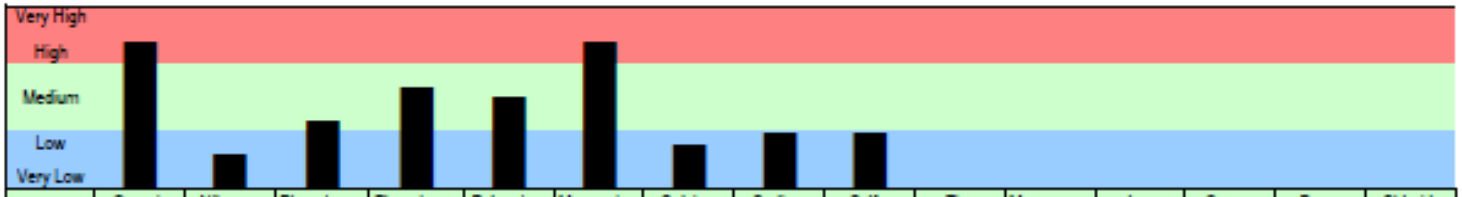
SEND TO: CLEAN AIR LAWN CARE
2169 FOLSOM ST #201M
SAN FRANCISCO, CA 94110-

GROWER:

SUBMITTED BY: MILL NASH

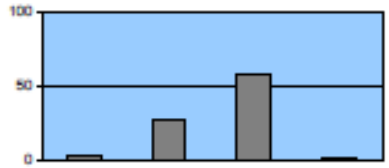
Graphical Soil Analysis Report

DATE OF REPORT: 11/25/08 LAB NO: 51777 SAMPLE ID: MCINN PAGE: 1



Analyte	Organic Matter %	Nitrogen NO_3-N ppm	Phosphorus Weak Bray ppm	Phosphorus $NaHCO_3$-P ppm	Potassium K ppm	Magnesium Mg ppm	Calcium Ca ppm	Sodium Na ppm	Sulfur SO_4-S ppm	Zinc Zn ppm	Manganese Mn ppm	Iron Fe ppm	Copper Cu ppm	Boron B ppm	Chloride Cl ppm
Results	12.5	8	19	25	188	417	1439	88	11						
		LOW	AVERAGE		HIGH										

Percent Cation Saturation (computed)



Potassium K %	Magnesium Mg %	Calcium Ca %	Sodium Na %
3.9	27.7	57.9	3.1
		ACIDIC	BASIC

ECe	CEC	Ex. Lime	pH
0.4	12.4	L	6.5
dS/m	meq/100g		

INCREASING SALINITY →

← INCREASING NEED FOR LIME

Buffer pH:

Soil Fertility Guidelines

CROP: LAWN RATE: lb/1000 sq ft NOTES:

Dolomite (70 score)	Lime (70 score)	Gypsum	Elemental Sulfur	Nitrogen N	Phosphate P_2O_5	Potash K_2O	Magnesium Mg	Sulfur SO_4-S	Zinc Zn	Manganese Mn	Iron Fe	Copper Cu	Boron B	
		20		2.2	1.0	3.0								

COMMENTS

NITROGEN: The above requirements may need to be adjusted according to local conditions. Follow label instructions as controlled-release fertilizers may be applied less frequently.
THATCH CONTROL is necessary to discourage insect and disease problems, and avoid poor water penetration. Light vertical cutting plus topdressings (and liming if low pH) will aid decomposition.
NITROGEN sources include composts and legumes as well as blood meal, cottonseed meal, hoof & horn meal, fish meal, or chicken feather meal. Sodium nitrate is not recommended. Monitor brix levels.
POTASH: Composts may be a significant source of potash. Certain sources of sulfate of potash may also be used, as well as kelp/seaweed products, wood ash, crushed granite and greensand.

Mike Buttress, CPAg
A & L WESTERN LABORATORIES, INC.


4. Water infrequently and deeply


• Water only in the early AM 1-2 x per week
• Adjust & Align Sprinklers
• Install Smart Controllers & Rain Sensors
• Use local rebates for replacing old heads
• Turn it OFF when it rains

5. Mow Smart

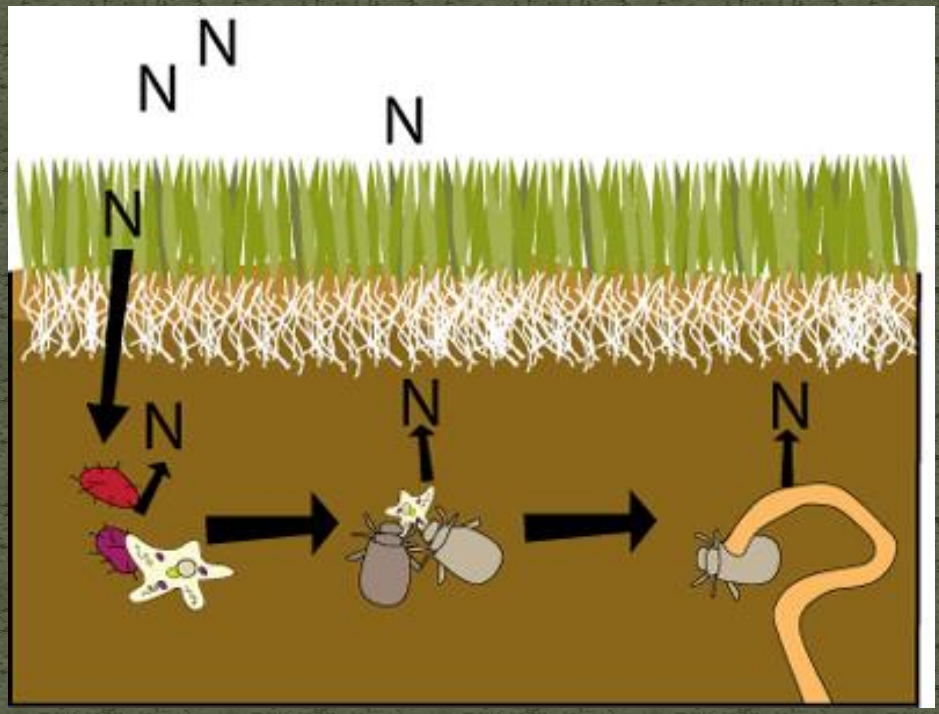

Mow higher
&
Leave the clippings on the lawn

Benefits of Mulch mowing

- Leaving grass clippings on the lawn returns nitrogen and other nutrients back to the soil.

- Conserves landfill space and the energy to haul it there.

- Reduces water pollution by allowing you to use up to 50% less fertilizer




Compacted Soil& Low Nitrogen levels
Before


Compacted Soil& Low Nitrogen levels
After

6. GO Electric

Electric vs. Gas

- Electric lawn mowers emit 3,300 times less hydrocarbons
- Electric lawn mowers emit 5,000 times less CO_2
- Electric lawn mowers emit one-fifth as much NO_2 as gas lawn mowers


7. Try a kinder
& gentler
approach to pests

Sustainable Lawn Care Practices:

Mow taller: 2 – 3" on rye/fescue, 1 - 1 ½" on bentgrass
Mulch mow
Soil test
Fertilize with organic products (when needed)
Proper irrigation practices
Lawn renovations

Use an IPM approach:

Monitor, use Cultural Controls, Biological Controls, Physical Controls

Organic Fertilizers, Soil Amendments & compost topdressing will add microbial life back into the soil which strengthen the grass and fight disease

8. *STOP* USING *TOXIC* PESTICIDES

Read your weeds...

Compacted soils often have annual bluegrass, plantain, goose grass and can mean you need to *Aerate the lawn*

Clover can mean your soil has *Low Nitrogen*

Lots of Dandelions might mean you need less Calcium and more Magnesium

9. Eliminate Chemical Fertilizers

The great expectations held for DDT have been realized. During 1946, exhaustive scientific tests have shown that, when properly used, DDT kills a host of destructive insect pests, and is a benefactor of all humanity.

Pennsalt produces DDT and its products in all standard forms and is now one of the country's largest producers of this amazing insecticide. Today, everyone can enjoy added comfort, health and safety through the insect-killing powers of Pennsalt DDT products . . . and DDT is only one of Pennsalt's many chemical products which benefit industry, farm and home.

GOOD FOR FRUITS—Bigger apples, juicier fruits that are free from unsightly worms . . . all benefits resulting from DDT dusts and sprays.

GOOD FOR STEERS—Beef grows meatier nowadays . . . for it's a scientific fact that—compared to untreated cattle—beef-steers gain up to 50 pounds extra when protected from horn flies and many other pests with DDT insecticides.

KNOX-OUT FOR THE HOME—helps to make healthier, more comfortable homes . . . protects your family from dangerous insect pests. Use Knox-Out DDT Powders and Sprays as directed . . . then watch the bugs "bite the dust"!

KNOX-OUT FOR DAIRIES—Up to 20% more milk . . . more butter . . . more cheese . . . tests prove greater milk production when dairy cows are protected from the annoyance of many insects with DDT insecticides like Knox-Out Stock and Barn Spray.

KILLING SALT CHEMICALS

97 Years' Service to Industry • Farm • Home

GOOD FOR ROW CROPS—25 more bushels of potatoes per acre . . . actual DDT tests have shown crop increases like this! DDT dusts and sprays help truck farmers pass these gains along to you.

KNOX-OUT FOR INDUSTRY—Food processing plants, laundries, dry cleaning plants, hotels . . . dozens of industries gain effective bug control, more pleasant work conditions with Pennsalt DDT products.

She longed for a Star Trek-type doctor with a state-of-the-art diagnostic tool. The doctor, with a few computer bleebs, would locate the exact cause of her newly discovered and doctor-baffling skin lesions and assign a painless treatment with no side effects.

Chemical Fertilizer Facts:

Chemical fertilizers disrupt the nutrient balance in the soil, accelerate turf growth, increase the need for mowing and contribute to thatch buildup.

Synthetic fertilizers create salt buildup in the soil and inhibit the grasses ability to take up water

Because of the extremely high levels of Nitrogen, Phosphorus and Potassium in synthetic fertilizers much of it completely misses the plant and ends up running into groundwater, eventually poisoning our rivers, lakes and streams.


10. Feed the Soil not the plant


It takes
500 years
to form an inch
of topsoil

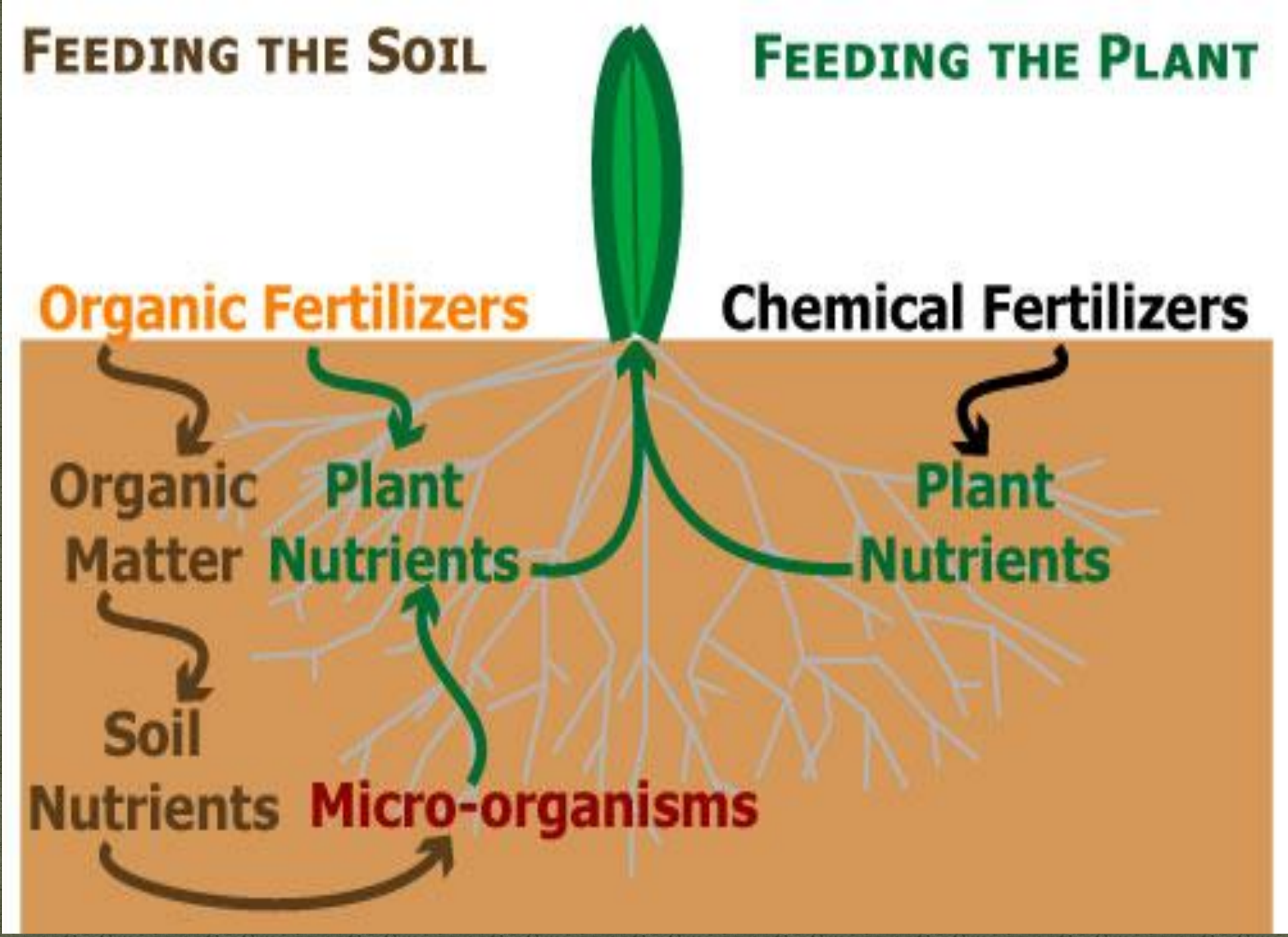
Benefits of Organic Fertilizers

Slow release fertilizers break down slowly into the soil,
work with the natural cycle of the grass
and release their nutrients gently over time

Encourage deep root development to help reduce watering requirements

Provides natural food for beneficial soil microorganisms

Provide grasses with better drought tolerance saving water,
improve disease resistance and provide greater nutrient uptake


FEEDING THE SOIL
FEEDING THE PLANT
Organic Fertilizers
Chemical Fertilizers
Organic Matter
Plant Nutrients
Plant Nutrients
Soil Nutrients
Micro-organisms

Clean Air Lawn Care's goal is to create and maintain beautiful lawns using earth-friendly and family-healthy methods.

Our lawn care treatment programs integrate the use of Organic fertilizers, Organic Pre-emergent weed control, and Micro-Organism Soil Builders.

Other chemical competitors use chemical based fertilizers that are harmful to pets, children and our environment.


Organic Lawn Treatment examples...
- heavily *compacted* soil
- low *nitrogen*
- heavy *thatch*


3 weeks after
Aeration,
Compost
Topdressing,
Organic Fertilization
& Overseeding


Before


After


Before
Compacted Soil& Low Nitrogen levels


After
Aeration & Worm Casting Tea


Compacted Soil& Low Nitrogen levels
Before


After

21 Acres.org


1% for the Bees!

2011 Clean Air Lawn Care reduced over 135,237 pounds of air pollution using emission-free equipment

www.cleanairlawncare.com