

Lawns Historical Perspective

During the past seven years, there has been a great deal of interest in the history of lawns and The Lawn Institute has had many requests for such information. This SPECIAL of <u>Harvests</u> newsletter contains ISSUE an of the development of lawns. overview Materials are documented so that you can access more details, if needed. We hope that this issue will be of help to garden editors as background information for articles and broadcasts about caring for lawns.

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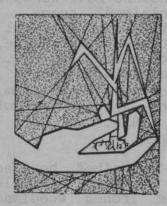
Lawns—Historical Perspective

by Beverly Cruickshank Roberts

What Is A Lawn ?

"A common thing is a grass blade small, Crushed by the feet that pass, But all the dwarfs and giants tall, Working till doomsday shadows fall Can't make a blade of grass."

- Juhan Stearns Cutler



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Early lawns were like a natural meadow or mead with grass, Spanish clover grass, sanfoin, medick fodder and flowering plants intermixed. Chamomile [Anthemis sp], an aromatic, low-growing plant, is still used in some parts of the world as the lawn plant.

Bartholomew de Glanville in 1399 defines 'meads': "De prato, a mead. Meads be y-hight with herbs and grass and flowers of divers kind. And therefore [for] fairness and green springing that is therein it is y-said that meads laugheth. Also meads, for [that] they be green, be liking to the sight, and for sweet odour they be liking to the smell, and feed the taste with savour of their herbs and of their grass" [Harvey 1981]. The word "lawn", from "launde" meaning land, was used in the English language as early as 1548 [Suplee 1989]. L H Baily in <u>Hortus</u> defines a lawn as "an area of the landscape carpeted with a greensward designed as a foundation setting for buildings" [Johns 1970]. In England "grass yards", "home greens", "yardways" and "lawns" were open spaces covered with grass.

In the modern sense, a lawn is an area of fine-leafed perennial grasses which are kept mown at a height of under 2 1/2 inches and is maintained to encourage the grass plants, and to discourage weeds, insects and diseases. Lawns vary in size and shape from small patches to rolling acres. Today, in United States, most lawns are comprised of specially developed turfgrasses and other plants are thought to be weeds.



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Suplee, Curt. 1989. "Slaves of the Lawn" The Washington Post Magazine. April 30,1989.



WHY DO WE

HAVE LAWNS?

.:CROCKOCKOCKO::

"Grass is the forgiveness of nature her constant benediction." - John James Ingalls

Plants are symbols of our ancestry - we came from the land. In some cases lawns are created in an attempt to bring the countryside and its heritage into the city, providing a linkage with our loss of contact with nature. The undisciplined naturalness of plants is symbolic and seems to be a necessity for the human spirit in this urban age. Ninety five percent of the respondents to a Harris/Life survey reported that one of the things they wanted most around them was "green grass and trees" [Lorence 1973].



Some believe that lawns and gardens are important because they are the result of a natural internal drive to form a familiar type of habitat. This features grassland, similar to that grazed by animals, with a few trees - the savanna. Some of humankind may well have evolved in similar surroundings [Falk 1977]. As there is variation in all people, some express this drive more directly than others. Many people also feel that the love of green lawns is born in us as part of our harmony with nature [Hitchcock 1931].





Ralph Taylor, a behavioral scientist at Temple University, writes in <u>Human</u> <u>Territorial Functioning</u>, "with the advent of the modern city, and the emergence of massproduced clothing, compulsory education, zoning laws and subsequent settlement patterns, it became increasingly difficult visually to identify people as belonging to a particular class... Instead, people became identified based on where they lived. Where you were defined who you were." A lawn is equated with the owner's identity and status. He notes that humans have needs to demark and defend their "claimed" space. When invaded by strangers it causes "arousal and stress", including "increased heart rate, sweating or increased blood pressure". It is very important to maintain borders. This is the "good fence-good neighbor" axiom. "Keep off the Grass" signs are one type of territorial marker..[Suplee 1989].

Sinclair Lewis described how George Babbitt designed the "Glen Oriole" housing development: He "ironed woodland and dipping meadow into a glenless, orioleless, sunburnt flat pricely with small boards announcing the names of imaginary streets". Regardless of such criticism, people still seem to prefer regularity. Simon J Bronner, Penn State folklorist, notes that the preference for bilateral symmetry, seen in furniture, and rectangular lawns, is emblematic of "human control over and elevation above nature," which is curvy. He writes, "Whether a bed or a coffin, a rectangle frames our bodies from birth to grave. The suburban house is rectangular. It's front is meant to be seen; its residents are in back... The facade is commonly unadorned and porchless" [Suplee 1989].

WHY DO WE

BAVE LAWNS? CONTINUED

Jack Solomon, semiotcian, writes "The front yard now serves as a signaling system by which we communicate to our neighbors, whether we know them or not, our willingness to maintain the physical integrity of the neighborhood" [Suplee 1989].



Lawns are still a symbol of beauty, respectability, peace and creativity and are a part of "The American Dream". "The lawn represents the tension between city and country. In the early history of America, the country was a very terrifying place. But once we tamed it, it became the place where we redeemed ourselves." "The lawn mediates between those worlds. The grass tamed represents the wilderness tamed. Keeping it mowed and managed signifies a state of grace - to subdue nature yet live within it", explains Gloria Levitas, an anthropologist at the City University of New York at Queens [Suplee 1989]. During the Puritan era raw nature was something to be tamed. By the Industrial Revolution when so many were working in dingy mills, nature again was seen as therapeutic [Suplee 1989].

Lawns stretch across America and unify the country's landscape: "A lawn immediately establishes a certain relationship with one's neighbors and, by extension, the larger American landscape" [Pollan 1989]. These unfenced, unhedged lawns are a unique garden design. It has become a civic responsibility to have a well tended lawn.





For some people, the lawn is a lump of clay to be molded into a creative landscape; to make something beautiful, one's own piece of nature. Others benefit from the exercise outof-doors. The lawn needs someone to care for it in order to flourish into a beautiful green outdoor carpet and people respond to this need and, in turn, have some of their own needs fulfilled. Increased valuation of property is a motivation for others. Most homeowners realize that other people judge their character on the basis of driving past their property and noting the condition of house and landscaping, symbols which portray a clear image of the homeowner. Mostly, people find tending plants therapeutic and fun.

Today lawns are enjoyed by most segments of the population in our country. Lawns occupy an area estimated at between 25,000,000 and 30,000,000 acres, nearly 50,000 square miles or the size of the six New England states. It is estimated that in 1987, fifty three million households participated in do-ityourself lawn care in America and spent 5.44 billion dollars on lawn care equipment and products [National Gardening Survey 1987-1988]. Gardening is the number one outdoor leisure activity in America and lawn care is the number one gardening activity.



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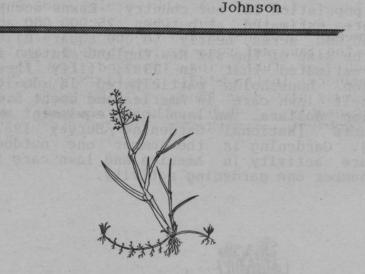
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LAWNS HAVE A LONG HISTORY

"A blade of grass is always a blade of grass, Whether in one country or another."



There are several thousand species in the grass family. Only a few are suitable for development into lawngrasses. Grass "in geological time possibly evolved during the Cretaceous and early Tertiary periods some 70 million years ago but the fragments of these fossils are scant". The Great Plains has a grassland fossil deposit dating from the lower Miocene [Huffine & Grau 1969]. Grass and man have evolved together through millions of years.

The Bible tells us that grass was part of Creation: "And God said, let the earth bring forth grass... And the earth brought forth grass.." [Genesis 1:11-12]. "And I will send grass in thy fields for thy cattle, that thou mayest eat and be full" is the promise found in Deuteronomy 8:7. In Proverbs 19:12 Solomon says: "The king's wrath is as the roaring of a lion; but his favor is as dew upon the grass." The Psalmist notes the brief span of a person's life: "As for man, his days are as grass: as a flower of the field, so he flourisheth. For the wind passeth over it, and it is gone; and the place thereof shall know it no more" [Psalm 10:3-15]. Isaiah 40:6-8 and 1 Peter 1:24 have similar expressions. The Emperors of China in 157-87 BC had extensive areas of closely cropped grass. During the Han Dynasty [100 BC] lawn areas were a part of the vast gardens of the emperor's palace. The Mayans and Aztecs in the Western Hemisphere cared for lawns. Babylonia and Assyria [Smiley 1983], and Ancient Persia [in AD 500] boasted of garden carpets of low growing plants and parklike meadows surrounding pavilions [Brookes 1987]. The Persian carpets show the design of these gardens. One famous carpet was made for Ahosroes I of Persia, about AD 531-579 based on the plan of a royal garden. The Iranian poet in AD 1000 wrote "History of the Kings" in which he described the Caspian Sea area:

"Mazanderan is the bower of spring... Tulips and hyacinths abound On every lawn; and all around Blooms like a garden in its prime Fostered by that delicious clime." [Huffine and Grau 1969]

The Romans [27 BC - 395 AD] used land grazed by sheep around their villas [Jacques 1983]. The open expanse of lawns were kept so as to be able to see who was approaching the castle or home. This is still a benefit of lawns today when in many places unwanted intruders hide in bushes waiting to attack.





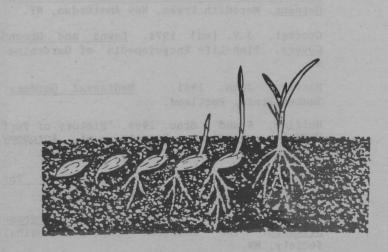
"A delightful garden should have violets and white roses, lilies, fruit trees, green grass and a running stream".

- Life of St Liutgart of Wittigen Germany 12th century

During the Crusades in the 11th and 13th centuries, people of Europe were in contact with the people of Assyria, Babylonia and Persia and the interest in gardens spread through Western Europe and England [Vengris and Torello 1982]. In 1167 the enclosures around the English king's chamber was turfed [Harvey 1981].

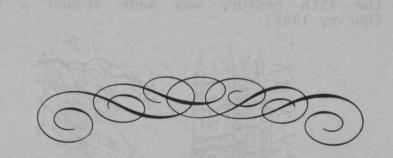


In England "Herbers [1/4 acre or less] normally included an expanse of lawn and is shown by this order of 1252 "to cause our great herber [at Woodstock] to be turfed [magnum herbarium nostrum ibidem turbari]" [Harvey 1981]. In the 1200's, there were also large expanses of lawn outside the smaller enclosed herbers. The lawn was a background to gardens as a canvas is to an oil painting [Harvey 1981].



Albertus Magnus, Count of Bollstadt, in his treatis <u>On Vegetables and Plants</u> [1260], wrote about pleasure gardens [viridariorum]. "There are, however, some places of no great utility or fruitfulness but designed for pleasure, which are rather lacking in cultivation and on that account cannot be reckoned with any of the said lands: for these are what are called pleasure gardens. They are in fact mainly designed for the delight of two senses, viz. sight and smell. They are therefore provided rather by removing what especially requires cultivation: for the sight is in no way so pleasantly refreshed as by fine and close grass kept short....

"Care must be taken that the lawn is of such a size that about it in a square may be planted every sweet-smelling herb such as rue, and sage and basil, and likewise all sorts of flowers, as the violet, columbine, lily, rose, iris and the like. So that between these herbs and the turf, at the edge of the lawn set square, let there be a higher bench of turf flowering and lovely; and somewhere in the middle provide seats so that men may sit down there to take their repose pleasurably when their sense need refreshment...." [Harvey 1981].



"Our England is a garden that is full of stately views, Of borders, beds and shrubberies and lawns and avenues... Our England is a garden, and such gardens are not made By singing 'Oh, how beautiful !' and sitting in the shade, While better men than we go out and start their working lives

At grubbing weeds from gravel paths with broken dinner knives.

Then seek your job with thankfulness and work till further orders,

If it's only netting strawberries or killing slugs on borders;

And when your back stops aching and your hands begin to harden, You will find yourself a partner in the Glory of the Garden."

- Rudyard Kipling "The Glory of the Garden"

LAWNS HAVE A LONG HISTORY CONTINUED

"When you destroy a blade of grass You poison England at her roots."

- Gordon Bottomley

In England, for Westminster Abbey, turf for the herbers and lawns was "dug locally at Hasardesmerch and Tothill for 1 shilling per hundred turves" in 1307-08 [Harvey 1981]. Moles seemed to have been a threat to a smooth lawn even back then. Turf was used for benches, "as in 1311 at Windsor Castle, when 1300 turves were dug for the benches of the herber between the hall and royal lodging.... In 1312-13 at Westminster, some 10,000 turves were dug and brought to the palace..". One type of turfed bench used in the 15th century was made around a tree [Harvey 1981].

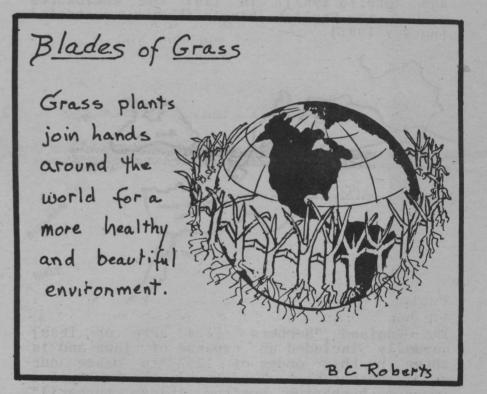


From the 13th and 14th centuries to the present, Northern European gardens were based on level expanses of grass lawns where the Southern European gardens used water as the focal point. "The cool green lawns of northern gardens are indeed substitutes for pools of water" Even so there were meadows of green grass included in descriptions of Southern villa grounds in the 14th century [Harvey 1981].

Betty Langley, well known landscape gardener, wrote in <u>New Principles of Gardening</u> [1728] that the gardens at Henry VIII's favorite palace, Hampton Court, would look better if "they were stripped of those trifling plants of Yew, Holly, etc... and made plain with grass" [Crocket 1971].



For many centuries lawns were the symbol of the powerful and rich [Huffine and Grau 1969]. British nobility had wide expanses of lawns around their mansions tended by gardeners using scythes. Lawns inside of castle walls were areas for relaxation and dancing. The wide open village "greens" of England were used as a place for residents to gather for community business, celebrations and relaxation. Even today these open expanses of green invite participation.



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Development of

American Lawns



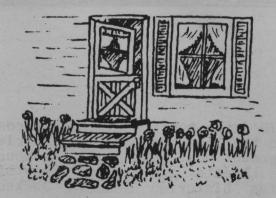
"I love you as I never loved before, Since first I met you on the village green; Come to me, or my dream of love is o'er. I love you as I loved you when you were sweet, When you were sweet sixteen."

- 19th century popular song John L Thornton





Early New England communities had dooryard gardens which were fenced-in narrow strips in front of the homes, small cottages or larger homes. Whether small grass lawns and flower beds or large expanses, these were tended with care [Earle 1901]. The early communities also copied the English "greens" where residents could gather to relax, for business and for celebrations. Many New World settlements surrounded such greens.



In the 18th century, it become a more popular fashion to have close mown lawns around homes. Visitors were impressed with grass yards surrounding private homes in America [Wilson 1961].

Thomas Jefferson, while Minister to France [1784-1789], was intrigued with the natural English gardens of that time. These have been called "Britain's greatest contribution to the visual arts" and were introduced around 1720 by poet Alexander Pope, artist William Kent, gardener "Capability" Brown and patron Richard Boyle. Dreamlike parks in which aristocracy could stroll as if through a painting were popularized. In 1806 Jefferson planned to re-landscape Monticello for his retirement and incorporated aspects of the English picturesque gardens with winding walks surrounding the front lawn with narrow borders of flowers and clumps of thicket and specimens of tall trees [Fogle 1988].



Development of American Lawns CONTINUED

In the late 19th century, urban parks were instituted to offer natural scenes in the midst of man-made cities. Andrew Jackson Downing designed the Washington DC Mall in 1851 [Fogle 1988]. Frederick Law Olmstead, a landscape theoretician, won the design competition for New York's Central Park in 1857, called by historian Robert Fishman "a genuine American suburban landscape" [Suplee 1989]. Roads for vehicles were separated from paths for pedestrians. The design of a city park as a natural environment remains the basic design for many parks.

By the end of the century, American cities had become blighted by the Industrial Revolution. A City Beautiful movement was sparked from the World Columbian Exposition in Chicago [1893]. Principles of classicism with elements of formalism, geometry and grand avenues and plazas were revived. Frederick Law Olmstead, Jr and Daniel Burnham replaced the naturalistic mall in the capital city with an area of classic symmetry. This movement and the new motor age spawned tree lined boulevards and parkways with areas of turf in and between many cities [Fogle 1988].

The American suburb, such as Cambridge near Boston and Brooklyn Heights and Greenwich Village near New York, arose around 1815. These at first were thought to be inhabited by people with questionable reputations. Olmstead had seen in England "large plots tended to be walled in imitation of aristocratic country houses, blocking the view from the sidewalks" and felt this type of design looked institutional. When he designed the suburb of Chestnut Hill near Philadelphia, the plan had houses set back at least 30 feet from the tree-lined sidewalk and no walls, with the lawn flowing into the neighbors lawns. In 1868, he designed Riverside, outside of Chicago which was one of these planned suburban communities. Fishman writes "He thus specified the design conditions for that greatest of American suburban landscape institutions, the front lawn". He also notes that "The front lawn is not family space and family members rarely venture out into it except to maintain it. It belongs, rather, to the community. The lawn is the owner's principal contribution to the suburban landscape - the piece of the 'park' he keeps up himself. At the same time the lawn is also private space, which no casual sidewalk passerby can make his own" [Suplee 1989].





In the 1870's the suburbs exploded across the nation and the lawn had become "a barrier - a kind of verdant moat separating the household from the threats and temptations of the city", notes historian Kenneth Jackson in <u>Crabgrass Frontiers</u>. The lawn was a part of this expansion and typified each suburb [Suplee 1989].

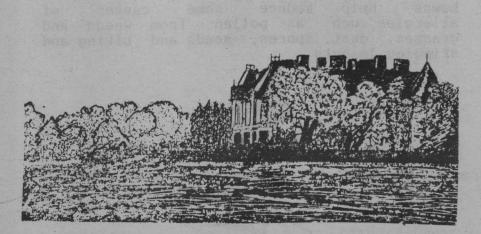


Development of American Lawns CONTINUED

Frank J Scott in The Art of Beautifying Suburban Home Grounds [1870] "took on a virtually scriptural significance in setting design standards that persist to this day" and brought lawns to the middle class. He had a love for lawns and the "prevailing British ethic linking horticultural vigor to spiritual worth". He placed vegetable gardens to more remote spots and influenced people to use this freed space, not as the English planted but for a lawn. "Let your lawn be your home's velvet robe, and your flowers not too promiscuous decorations". Scott encouraged slanting yards which made the homes look larger and the avoidance of barriers gave a deeper vista. [Suplee 1989]. He also departed from the European and British practices by emphasizing each gardener's responsibility to their neighbors. "It is unchristian to hedge from the sight of others the beauties of nature which it has been our good fortune to create or secure", Scott emphasized. "The beauty obtained by throwing front grounds open together, is of that excellent quality which enriches all who take part in the exchange, and makes no man poorer". Scott elevated the lawn into an institution of democracy [Pollan 1989].

Blades of Grass We also have become a symbol of democracy !

The era of the country place was during 1880-1920, before income tax, when America's increasing number of millionaires escaped to the countryside. These estates were about 20 acres with an expansive vista with sweeping lawn as the central focus to other amenities, such as tennis court, swimming pool and gardens [Fogle 1988].



In the 1920's the yard was packaged along with houses and sold as a unit by mail order houses.

After World War II, automobiles boomed and in 1956 President Eisenhower signed the Interstate Highway Act, both of which sent millions to the suburbs. In 1910, 23% Americans lived in the suburbs but by 1980 this rose to 60% and nearly 2/3 of the nation's 86.4 million residences were singlefamily dwellings surrounded by yards [Suplee 1989]. Lawns were abundant in the 1950's and "bluegrass ruled the country". Low areas were filled and forests were cut resulting in contiguous grassy lots forming acres of savanna. Television and magazines featured grassy yards as part of "the good life" [Fogle 1988].

In the 1960's along with the growth of social awareness came "vest pocket" parks in the city giving small green oases for the people. These are still a popular mark in cities. Many of these have grassed areas which are popular for relaxing and lunch hour snack places. Large parks continue to be popular. One of the largest and oldest city parks is Fairmount Park [9000 acres] in Philadelphia PA. Now at Epcot Center, Orlando, Florida, 4 million square feet of Argentine bahiagrass sets the stage for the exceptional landscaping and a park for the enjoyment of thousands of families each year.

Lawns give humankind many benefits environmental, monetary, health and emotional. It is no wonder that lawns in America now enhance highways, parks, institutional grounds, commercial complexes, cemeteries, sports complexes, as well as homes.

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Some Benefits of Lawns



"The grasses are the least noticed of the flowering plants. They seem to be taken for granted like air and sunlight, and the general run of people never give them a thought." [Hichcock, 1931]

The aesthetic values of turfed areas have long been recognized. The green, uniform surface adds to the beauty of the landscape and gives the illusion of spaciousness. The expanse of green gives a feeling of calm, peace and coolness.

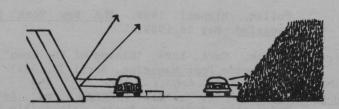
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Lawns have a real monetary value. A well landscaped lot adds 15 % increase in selling price of a home. Appraisers estimate well designed and maintained landscapes add 6 % to commercial property value.

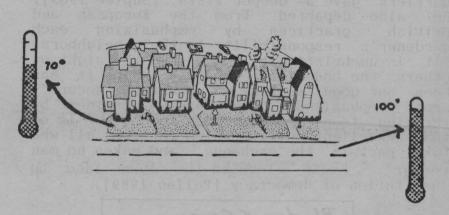


Lawns give health benefits to the community. The feeling of well-being helps reduce stress. Therapeutic values of gardening have long been recognized. The pride one takes in helping plants grow helps establish confidence and self worth.

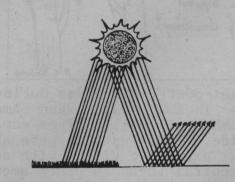
Grasses, as well as other ornamentals, reduce undesirable noise levels by 20-30 % [Robey, 1977]. Noise is an increasing problem in urban areas.



On a block of eight average houses, front lawns have the cooling effect of about 70 tons of air conditioning [Baker 1987]. Turf absorbs radiation and converts it to food for the plants.



Well maintained lawns provide a soft, green surface which significantly absorbs and reduces glare. This is a contributing stress factor in our increasingly shiny world.



Lawns help reduce some causes of allergies, such as pollen from weeds and grasses, dust, spores, seeds and biting and stinging insects.



Some Benefits of Lawns CONTINUED

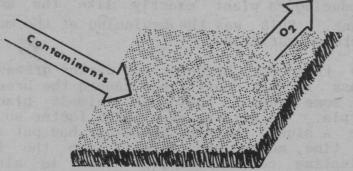


"It [grass] is the handkerchief of the Lord".

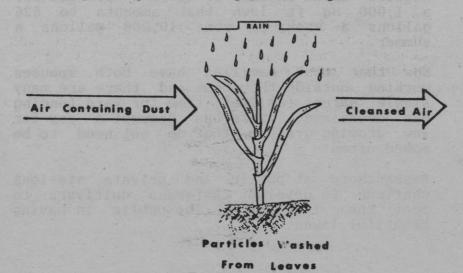
- Walt Whitman

It is amazing what positive impact tiny grass plants have in our environment. The biology of turfgrass soils makes lawns a near ideal medium for the biodegradation of all sorts of environmental contamination. These soils are active in purifying the water as it leaches through the rootzone and down into underground aquifers. A thick lawn slows runoff of rain and allows the water to penetrate the soil.

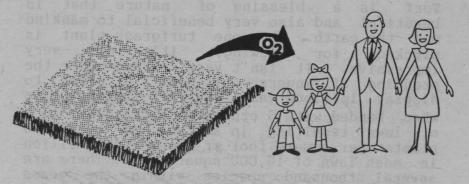
An acre of flourishing lawn will probably absorb hundreds of pounds of sulfur dioxide during a year [Schery 1973]. Grass also "takes in carbon dioxide, ozone, hydrogen fluoride and peroxyacetyl nitrate - the worst group of atmospheric pollutants - and returns the true breath of life: pure oxygen" [Baker 1987].



Dust particles cause haze and smog over cities. Grasses trap much of an estimated 12 million tons of dust and dirt released annually into the atmosphere [Daniel and Freeborg 1979]. This helps our lungs.



Plants, including turfgrasses, release significant amounts of oxygen into the air. A turf area 50' x 50' produces enough oxygen to meet the needs of a family of 4 [Huffine and Grau 1969].



Healthy green turf will not sustain fire so in areas prone to frequent uncontrolled burns, a buffer zone of well maintained lawn is good insurance.

Soil is one of our most precious resources. Grass is the most effective plant in conditioning the soil. Roots are continually developing, dying off, decomposing and redeveloping. Grass improves the soil by stimulating biological life in it and by creating a more favorable soil structure for plant growth [Hamm 1964]. Lawns also hold soil in place so it won't erode.



A lawn mowed at 1-2 inches is not a safe home for many small animals, such as rodents, snakes, ticks, skunks. This makes yards and homes more pleasant and safe.

These benefits are important to humankind and every effort should be made to keep lawns in good conditions so that the little grass plants can flourish.

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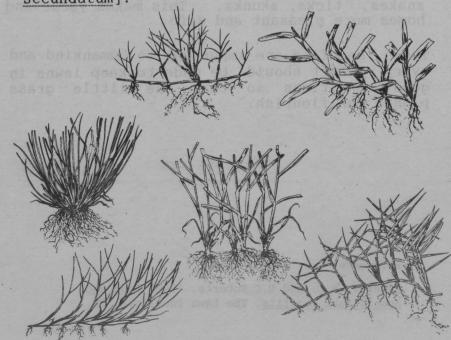
A SHORT HISTORY

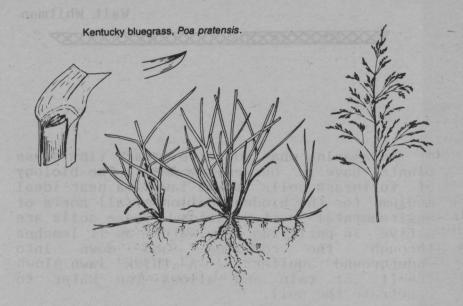
OF LAWNGRASS

Turf is a blessing of nature that is beautiful and also very beneficial to mankind and the earth. When one turfgrass plant is plucked for viewing, it's not very impressive. It isn't very strong under the prodding of fingers. It isn't a plant to display in a bud vase. But, it is impressive when banded with 5 others in each square inch of lawn, resulting in a turf of over 850 plants per square foot or about eight million in each lawn of 10,000 square feet. There are several thousand species within the grass family. Only a few are suitable for development into lawngrass. During the past 15-20 years, researchers have worked at developing grasses to make lawns and sports turf more beautiful and easier to maintain. These proprietary lawngrasses are now very popular in this country.

Basic attributes of turfgrasses include: ability to thrive under close and frequent mowing; disease resistance even under regular mowing and traffic; drought resistance; insect resistance; a good green color and fine texture; resistant to weed invasion.

Almost all of the major lawngrasses in our country are immigrants. Cool season turf grasses include: bluegrasses [Poa spp], bentgrasses [Agrostis spp], fescues [Festuca spp], ryegrasses [Lolium spp]. Warm season grasses include: bermudagrass [Cynodon spp], zoysiagrass [Zoysia spp], centipedegrass [Eremochloa ophiuroides], St Augustinegrass [Stenotaphrum secundatum], bahiagrass [Paspalum notatum] and buffalograss [Buchloe secundatum].





Merion Kentucky bluegrass became the first improved bluegrass to be grown from seed at Beltsville, Maryland, having been selected by Joseph Valentine at Merion Golf Club, Ardmore, Pennsylvania. It had the characteristic of apomixis - the seed producing a plant exactly like the mother plant. This was the beginning of the modern improved varieties.

The trend for brighter or darker greens in grass in this country has caused the breeding of some grasses that look almost black or purple. Dark lawns show weeds faster so they are a signal that the homeowner has put a lot of time, money and effort into the lawn. Selecting colors for your lawn is already possible by selecting different varieties of grass.

With restrictions on water in many places, the development of "low maintenance" grasses has become important. Standard lawngrasses require about an inch of water a week and for a 1,000 sq ft lawn that amounts to 626 gallons a week or some 10,000 gallons a summer.

Now that most families have both spouses working outside the home and there are many single parent families, time for yard tending has decreased. This has brought a cry for low growing grasses that do not need to be mowed often.

Researchers at public and private stations continue to develop turfgrass cultivars to meet the interest of the public in having beautiful lawns.



The History of Kentucky Bluegrass

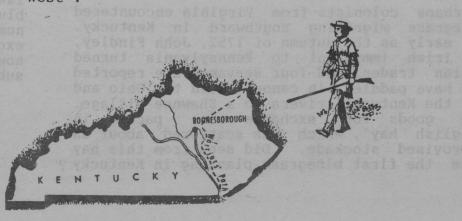
The story of one grass - Kentucky bluegrass is a good illustration of the history of lawngrasses.

"The Saga of Kentucky Bluegrass. Like the Pilgrims, Kentucky bluegrass was a pioneer in America long before it was named for the Caintuck wilderness of Virginia, made a state in 1792. Early records show that bluegrass was known in ancient Greece. Indeed, the Greeks had a word for it, the source of its later scientific name, Poa. [Kentucky bluegrass is Poa pratensis, or 'poa of the meadow']. Before New World exploration began, Poa pratensis was the familiar meadow grass of northern Europe and England. "But, by 1620, the inexorable nibblings at the seemingly limitless woodlands were well under way. John Smith reports: 'James Towne is yet their chiefe seat, most of the wood destroyed, little corne there planted, but all converted into pasture and gardens; wherein doth grow all manner of herbs and roots we have in England in abundance and a good grasse as can be.'



"William Penn, Thomas Jefferson, Benjamin Franklin, and the few new World botanists of the day all noted in their writings the ready invasion of cleared lands by bluegrass and fellow pasture migrants. By Revolutionary times there was do doubt that bluegrass was widely spread through all of settled America.

"The latter half of the eighteenth century was marked by adventurous backwoodsmen crossing the mountains for trade and exploration. Daniel Boone and other explorers reported parts of Kentucky a sea of grass. And strangely, at least in the Ohio Valley, open land was already dominated by this Old World partner of the white man. Bluegrass seems to have beaten Boone to the West !





"Probably English grass, as bluegrass was known to the colonists, was just a chance passenger in hay and stock bedding on the early ships bringing supplies to newly discovered lands. In reports of these first landings in eastern America there is little mention of pasture grass. Who would send Sir Walter Raleigh a prosaic account of stock feed, when he might tell instead of a romantic new continent, and of savages and treasure ?

"As early as 1584, however, Captain Arthur Barlowe, reporting on Virginia, mentions trial plantings to test the soil. Even then, Kentucky bluegrass may have begun its New World conquest. In 1586, the governor of Grenville's colony reported to Raleigh: 'We had sown enough grain fields to give us food for a year.' Was bluegrass, volunteer in cropland, already working westward to its destiny in Kentucky ?

"Migration of this pioneer grass could progress only as colonization felled the forest and the land was turned. Grass does not flourish in wooded areas and, except for infrequent Indian clearings, eastern North America was mostly forest at the time of Raleigh.

The History of Kentucky Bluegrass CONTINUED



"It is unlikely that bluegrass worked its own way westward through the forests, or that the very early explorers dispersed bluegrass seed. Yet here was bluegrass, reliably reported, in the wilderness of Ohio, Indiana, and Kentucky ahead of settlement.

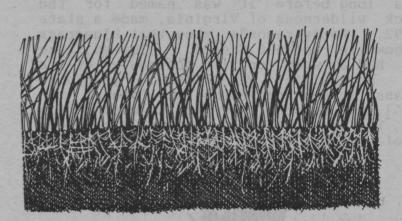
"The most reasonable surmise is that bluegrass slipped around the mountains through the St Lawrence Valley with the French. Marquette and La Salle, from 1672 to 1682, had explored the Illinois country. Forts and settlements were established at Kaskaskia, Illinois and at Vincennes on the Wabash by 1700 and 1702. These were flourishing when Charlevoix visited the area in 1721.

"The French were noted for mission work with the Indians, and part of their program included distribution of seeds. The botanist Per Kalm commented in 1749 on the luxuriant bluegrass pastures of French Canada.

"It seems reasonable that bluegrass was introduced to the Ohio Valley by missionaries a good half-century before Boone ever saw Kentucky. Birkbeck, in Letters from Illinois, 1818, writes: 'Where the little caravans have encamped as they crossed the prairies, and have given their cattle hay made of these perennial grasses, there remains ever after a spot of green turf for the instruction and encouragement of future improvers.'



"Perhaps colonists from Virginia encountered bluegrass migrating southward in Kentucky. As early as the autumn of 1752, John Findley, an Irish immigrant to Pennsylvania turned Indian trader, and four servants are reported to have paddled in canoes down the Ohio and up the Kentucky rivers to a Shawnee village. The goods for exchange were packed in 'English hay', which was scattered about an improvised stockade. Did seed from this hay make the first bluegrass planting in Kentucky? "Julia H Levering, writing on Indiana history, states: 'Soldiers who fought under Harrison in the battle of Tippecanoe in 1811 discovered the superior qualities of bluegrass... on return home they carried seed and sowed this grass which has made Kentucky famous !' Other reports show interchange of bluegrass seed between southern Ohio and Kentucky at a slightly later date.



"There is no exact date for the association of bluegrass with Kentucky. Early plant collectors writing from 1813 to 1833 list Poa pratensis, but do not mention Kentucky bluegrass among its twenty-seven common names. Yet, David Well's <u>Yearbook of</u> <u>Agriculture</u> for 1855-56 states: 'In Kentucky it is called Kentucky bluegrass... succeeds far better... than in any part of Europe where it is native.' Sometime shortly before mid-century it must have become popularly named for the state. In any event, flourishing on the phosphatic soils of the Lexington area, bluegrass, with the wealth and leisure it created, sponsored the first culture center west of the mountains.

"Today Kentucky bluegrass is very much at home in most of America. Starting as a pasture grass, it has risen to even greater glory as America's number one lawn species, a chief ingredient of quality seed mixtures used throughout the northern two-thirds of the land [and sometimes employed for annual winterseeding in the South]. Considering lawns along with the millions of acres of bluegrass pasture, perhaps no other plant is numerically so prevalent. Bluegrass is still excellent pasturage, but especially, nowadays, it is the adornment of a suburbanizing nation." [Schery 1961].

> Reference: Schery, R W. 1961. <u>The Lawn Book</u>. MacMillan Publ, NY.



Some Early Lawn Maintenance Procedures

We've Come A Long Way, Baby !!!

Magnus, Albertus Count of Ballstadt, described in 1260 in his paper On Vegetables to prepare pleasure Plants how a garden."It is impossible to produce this except with rich and firm soil; so it behoves the man who would prepare the site for a pleasure garden, first to clear it well from the roots of weeds, which can scarcely be done unless the roots are first dug out and the site levelled, and the whole well flooded with boiling water so that the fragments of roots and seeds remaining in the earth may not by any means sprout forth. Then the whole plot is to be covered with rich turf of flourishing grass, the turves beaten down with broad wooden mallets and the plants of grass trodden into the ground until they cannot be seen or scarcely anything of them perceived. For then little by little they may spring forth closely and cover the surface like a green cloth".

Blades of Grass	
He planted us upside down!	
A LEW	BC Roberts

Bartholomew de Glanville in 1399 "in his chapter on grass stresses the importance of compressing the turf and treading it down [si compressa fuerit aut mediocriter conculcata] to avoid luxuriance and bursting forth into seed". In days prior to the lawn mower, the short grass grew in a hard, even surface. Rollers were often used as far back as the 1200's in England [Harvey 1981].

"The making of a green plot [for bowls] could be a rather elaborate process. Here is the detailed description given by Gervase Markham in a book published in 1613, Way to Get Wealth, a title suggesting that, then as now, green making could be a lucrative business: 'To fit a place for this manner of greene plot, it is requisite that it may be cleansed from all manner of stones and weedes, not so much as the rootes left undestroyed, and for the better accomplishing hereof, there must boiling water be poured upon such endes of rootes as staying behind in the ground cannot be well pulled up, and afterwards the floor must be beaten and troden down mightily, then after this there must be cast great quantity and store of turfes of earth full of greene grasse, the bare earth part of them being turned and laid upward, and afterward danced upon with the feete, and the beater or paving beetle lightly passing over them, in such sort that within a short time after, the grasse may begin to peep up and put forth small haires.'"[Crocket 1971].

Grazing sheep were used for years to keep areas mown. Scythes used for cutting hay were the early "mowing machines". In 1830 Edwin Budding of Gloucestershire, England invented the lawn mower and this changed turf maintenance. He promised that it's application would be found to be "an amusing, useful and healthful exercise". This first lawn mower took over from the scythe in a short period of time. Budding had borrowed the principle of the spiral cutting mechanism used to shear napped fabrics in textile mills. This is very similar to the reel mowers of today. Some models had to be drawn by a horse or donkey or two men. Eventually models were made that could be pushed by a woman or a boy. Advertisements raved about the advantages with testimonials, guarantees and pictures in the 1870s and 1880s. Names of royal patrons such as Queen Victoria and the Russian Emperor were used to show the lawn mower's worth [Crockett 1971].

Some Early Lawn Maintenance Procedures CONTINUED

ARCHIMEDEAN

(Crockett 1971)

By 1880, 47,661 man-powered mowers were manufactured in the United States. In 1884 a man powered design with revolving cutters driven by large wheels arrived on the scene [Supple 1989]. In 1900 the first motordriven lawn mower was used.

"The first North American publication dedicated to lawn care appeared in 1870 when Frank J Scott lauded the virtues of 'a smooth, closely shaven surface of grass' in his book The Art of Beautifying Suburban Home Grounds" [Evans 1989].

Today lawn care has taken on a different look with computer controlled watering systems and lawn care specialists offer consumers partial to complete lawn care.

The care of lawns was more art than science early on. Even today, when the science of turfgrass culture has become well developed and sophisticated equipment is available, maintaining a fine lawn is still an art.

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