

Agricultural Report

Agrivolution, Groton

Connecticut Department of Agriculture
Dannel P. Malloy, Governor
Steven K. Reviczky, Commissioner



Linda Piotrowicz, Editor
Wednesday, February 19, 2014

SOIL TESTING: AN IMPORTANT TOOL FOR IMPROVING PLANT GROWTH

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The Connecticut Agricultural Experiment Station*

Plant health is governed to a large extent by soil fertility. Soil tests provide an intelligent guide to the use of fertilizers, limestone, and other soil amendments.

Until Dr. M. F. Morgan, of the Connecticut Agricultural Experiment Station (see picture at right), developed the first quick and reliable soil test in the 1930s, maintaining soil fertility was largely guesswork. The abandonment of Connecticut farmland throughout the 1800s was caused in part because soil fertility and associated crop yields were declining due to the lack of a method to determine the soil nutrients needed to sustain plant growth.

Prior to Dr. Morgan, plant requirements for approximately 16 nutrients had been established, but no one had been able to develop a test that could mimic the nutrient extraction capability of a plant's root system. Dr. Morgan's breakthrough was the development of an extracting solution with the nutrient removal ability of a plant's root system. Called the "Morgan's Universal Extract," the solution could be analyzed for plant nutrients and, based on the results, crop needs could be predicted.

The Morgan Soil Test is now the basis for many soil tests throughout the world. Currently, soil testing laboratories at the Connecticut Agricultural Experiment Station in New Haven and Windsor use the Morgan Soil Test to analyze over 10,000 samples each year from farms, lawns, home gardens, nurseries, golf courses and commercial grounds.

The test determines levels of nitrate nitrogen ($\text{NO}_3\text{-N}$), ammonium nitrogen ($\text{NH}_4\text{-N}$), phosphorus (P), potassium (K), calcium (Ca),



Dr. M. F. Morgan developed the first quick and reliable soil test in the 1930s

and magnesium (Mg). These are the nutrients most likely to be deficient in Connecticut soils. Other tests performed are pH (acidity or alkalinity), organic matter, and soil texture (percent sand, silt, and clay).

In addition to improving plant growth, soil tests can help reduce the pollution of groundwater, lakes, and Long Island Sound by preventing the overuse of fertilizer.

Below is a description of the results of typical soil tests (see sample report on Page 3) supplied by the Connecticut Agricultural Experiment Station.

SOIL TEXTURE: Texture describes the amount of sand, silt, and clay in the soil. The textures of soils containing more than 20 percent by weight organic matter are called "organic." Most soils in Connecticut are classified as "Sandy Loams," meaning they contain more sand than silt and clay. Soil texture influences the amount of water and nutrients a soil can hold. Sandy soils require more frequent watering and lose nutrients more readily by leaching than soils containing greater amounts of silt and clay. Plants growing in silty and clayey soils are prone to root damage caused by wet soil and poor air movement to the roots.

ORGANIC MATTER: Organic matter also influences the amount of water and nutrients the soil can hold. High organic soils have better structure and retain more nutrients and water than medium and low organic soils. Most soils in Connecticut can be improved by yearly additions of organic materials such as compost.

(continued on Page 3)

**WHOLESALE GREENHSE PRODUCE
U.S. AND INTERNATIONAL**

	Low	High
CUCUMBR,prsn,20lb,MX	32.00	32.00
LEEK,5kg,NT	16.00	19.00
PEPPR,bl,rd,11lb,MX	14.00	18.00
PEPPR,bl,ylw,11lb,MX	17.50	20.00
RHUBARB,15lb,WA	45.00	50.00
TOMATO,12lb,vnrp,ME	24.00	25.00
TOMATO,25lb,lg,ME	20.00	22.00

NEW HOLLAND, PA, HOG AUCTION

Sold by actual weights; prices quoted by hundred wt.

	Low	High
49-54	220-300 lbs	65.00 70.00
	300-400 lbs	n/a
45-49	220-300 lbs	n/a
	200-400 lbs	n/a
Sow; US1-3	300-500 lbs	55.00 62.00
	500-700 lbs	58.00 64.50
Boars	300-700 lbs	15.00 16.00

PA GRADER FEEDER PIGS

Lancaster, PA, per cwt.

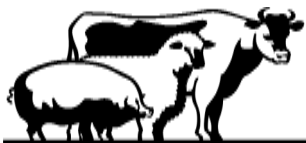
	Low	High
Gr US 1-	wt 20-30	100.00 110.00
	wt 30-35	150.00 180.00
	wt 35-40	110.00 140.00
	wt 40-50	130.00 160.00
	wt 60-90	100.00 130.00

MIDDLESEX LIVESTOCK AUCTION

Middlefield, February 17, 2014

Live animals brought the following ave. prices per cwt.

	Low	High
Bob Calves:		
45-60 lbs.	20.00	25.00
61-75 lbs.	35.00	40.00
76-90 lbs.	45.00	50.00
91-105 lbs.	55.00	60.00
106 lbs. & up	70.00	80.00
Farm Calves	85.00	95.00
Starter Calves		n/a
Veal Calves	85.00	135.00
Open Heifers	105.00	125.00
Beef Steers	105.00	108.00
Beef Heifers	98.00	100.00
Feeder Steers	100.00	105.00
Stock Bulls	95.00	106.00
Beef Bulls	91.00	113.00
Boars		n/a
Sows	1 at	28.00
Butcher Hogs		n/a
Goats each	1 at	15.00
Kid Goats		n/a
Canners	up to	85.75
Cutters	86.00	89.00
Utility Grade Cows	90.00	95.00
Replacement Heifers		n/a
Replacement Cows		n/a
Rabbits each	5.00	22.50
Chickens each	6.00	32.50
Ducks each	7.00	10.00
Feeder Pigs	10 at	50.00
Lambs	20.00	27.50
Sheep	100.00	110.00



**WHOLESALE FRUITS & VEGETABLES
NEW ENGLAND GROWN**

(Boston Terminal and wholesale grower prices)

	Low	High
APPLE,hnycrsp,fcy,80ct	30.00	30.00
APPLE,mcntsh,12/3lb,fcy	15.00	16.00
APPLE,mcntsh,fcy,80ct	16.00	16.00
CIDER,4/1gal	16.00	16.00
POTATO,10lb	2.75	2.75
POTATO,CHF,50lb	12.00	12.00
POTATO,rd,50lb ,szA	15.00	15.00
SQUASH,btrnt,md,1 1/9bu	14.00	15.00



SHIPPED IN

	Low	High
AVOCADO,hass,32,MX	30.00	32.00
BEAN,grn,bu,FL	30.00	32.00
BLUEBERRY,12/1pt,CL	30.00	31.00
BRUSSEL SPRT,25lb,CA	20.00	22.00
CELERIAC,20lb CN	15.00	15.00
CUCUMBER,1 1/9bu,MD	14.00	17.00
EGGPLANT,1 1/9bu,FL	14.00	18.00
JERUSLM ARTCHK,10ct,CA	42.00	42.00
LETTUCE,grn lf,24ct,CA	16.00	16.00
MUSHROOM,oyst,3lb,PA	13.00	13.00
ONION,ylw,50lb,NY	16.00	16.00
ORANGE,nvl,113ct,CA	25.00	25.00
PEAR,bsc,80ct,OR	36.00	36.00
PLANTAIN,grn,50lb	17.00	17.00
PLUM,48ct,CH	32.00	34.00
SWEET CORN,4dz,FL	26.00	30.00
TANGERINE,80ct,FL	32.00	33.00



**RETAIL BEEF, USDA
NORTHEAST U.S. MAJOR SUPERMARKETS**

Prices per pound

	Low	High
BEEF SHORT RIB	4.98	4.98
BOTTOM ROUND ROAST	2.49	4.99
GROUND,80-89%	4.99	4.99
LONDON BROIL	2.49	4.99
NY STRIP STEAK	4.99	9.99
PORTERHOUSE STEAK	5.99	9.99
SIRLOIN STEAK TIPS	4.49	4.99
STEW MEAT	3.98	4.29
T-BONE STEAK	7.98	9.99
TOP ROUND ROAST	4.69	4.69

PA LIVESTOCK SUMMARY

February 17, 2014

Average Dressing

SLAUGHTER COWS:		
breakers 75-80% lean	87.75	91.25
boners 80-85%	82.75	87.25
lean 85-90%	77.50	82.00
CALVES graded bull		
No 1-95-120lbs	157.75	175.00
No 2 95-120lbs	138.75	159.25
No 3 80-120lbs	89.05	126.50
SLAUGHTER BULLS yield gr		
High dressing	113.50	119.00
Avg.dressing	103.75	109.00
Low dressing	88.75	93.50
SLAUGHTER HEIFERS		
HiCh/Prm2-3	145.50	149.00
Ch2-3	140.00	143.00
Ch1-3	132.25	136.50
SLAUGHTER STEERS.		
HiCh/prm2-3	148.25	153.25
Ch1-3	143.00	148.00
Sel1-2	135.00	140.75
SLAUGHTER HOLSTEINS		
HiCh/prm2-3	124.00	128.75
Ch2-3	116.50	120.50
Ch1-2	107.50	113.50
VEALER 60-120lbs	29.75	60.00
SLAUGHTER LAMBS: ch/pr 2-3 hair sheep		
40-60lbs	235.00	266.00
60-80lb	230.00	240.00
80-110lbs	202.00	227.00
SLAUGHTER EWES: good 2-3		
110-120lbs		n/a
130-160	95.00	105.00
160-200	100.00	115.00
Bucks	140-150lbs	102.00 102.00
	180-200lbs	66.00 82.00
	200-250lbs	72.00 90.00
SLAUGHTER GOATS:Sel.1, by head, est.		
40-60lb	132.00	176.00
60-80lb	150.00	194.00
80-110lb	160.00	187.00
Nannies/Does: 90-120lbs	145.00	165.00
	120-135lbs	162.00 182.00
Bucks/Billies: 120-150lbs	212.00	290.00
	150-160lbs	310.00 325.00

EASTERN PA GRAIN

Average price per bushel

BARLEY	4.86
CORN	6.96
OATS	4.09
SOYBEANS	13.50
WHEAT	8.83

NORTHEAST EGG PRICES USDA

Per doz., USDA Grade A/Grade A white in cartons (volume buyers)

XTRA LARGE	1.30	1.33
LARGE	1.27	1.31
MEDIUM	1.19	1.21

NEW ENGLAND SHELL EGGS

Per doz., wholesale Grade A brown in cartons (delivered)

XTRA LARGE	2.26	2.36
LARGE	2.20	2.30
MEDIUM	1.43	1.53

ADVERTISEMENTS

FOR SALE

1-R. Blumenthal & Donahue is now Connecticut's first independent NATIONWIDE Agri-Business Insurance Agency. Christmas tree growers, beekeepers, sheep breeders, organic farmers and all others, call us for all your insurance needs. 800-554-8049 or www.bludon.com.

2-R. Farm, homeowner and commercial insurance—we do it all. Call Blumenthal & Donahue 800-554-8049 or www.bludon.com.

3-R. Gallagher electric fencing for farms, horses, deer control, gardens, & beehives. Sonpal's Power Fence 860-491-2290.

4-R. Packaging for egg sales. New egg cartons, flats, egg cases, 30 doz and 15 doz. Polinsky Farm 860-376-2227.

5-R. Nationwide Agribusiness Insurance Program, endorsed by the CT Farm Bureau, save up to 23% on your farm insurance and get better protection. References available from satisfied farmers. Call Marci today at 203-444-6553.

8-R. Corn silage stored in corn pit. Augur Farm. 203-530-4953.

18-R. 4 row Stanley Seeder, 2 sets of boxes and belts. Recently tuned up, manual included. 860-234-1328.

20-R. Dracena Spikes 48/tray \$17. Geranium-Calliope Burgundy, 50 cents per rooted cutting. Woodland Gardens 860-643-8474.

MISCELLANEOUS

10-R. Farm/Land specializing in land, farms, and all types of Real Estate. Established Broker with a lifetime of agricultural experience and 40 years of finance. Representing both Buyers and Sellers. Call Clint Charter of Wallace-Tustin Realty (860) 644-5667.

13-R. \$500/acre. Landowners, I am looking to lease 25+ acres of "A" land for up to \$500 per acre per year. Tell your friends or call Doug at 203-952-8542.

WANTED

19-R. Simple pipe frame style plastic mulch layer, either flat or raised bed. 860-234-1328.

The Connecticut Week Agricultural Report offers affordable classified advertisements for your farm-related needs. See Page 4 for details and rates, or call Jane Slupecki at 860-713-2588 for more information.

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(continued from Page 1)

pH: Soil pH affects the availability of nutrients to plants and, when interpreted with texture and organic matter, determines the amount of limestone or sulfur needed to raise or lower the pH to the correct level. The results are expressed in pH units, with pH 7.0 being neutral, pH below 7.0 being acidic, and pH above 7.0 being alkaline. Most Connecticut soils have a pH in the range 4.5 to 6.5 and are naturally acidic. Most plants grow best at a soil pH between 6.0 and 7.0; however, some plants, such as rhododendrons, azaleas, mountain laurel, and blueberries, prefer a pH in the range of 4.5 to 5.5.

NITRATE NITROGEN: Plants generally take up nitrogen in the form of nitrate, which comes from fertilizers or microbial conversion of other forms of nitrogen in the soil. The Morgan nitrate test indicates how much nitrate is immediately available to plants, but not the ability of the soil to provide nitrogen gradually throughout the growing season. For this reason, this test requires careful interpretation. Excess nitrate nitrogen can be harmful to plants, may leach to ground water, or may be transported with rainfall to pollute bodies of fresh water or Long Island Sound.

AMMONIUM NITROGEN: Soils generally do not contain high concentrations of ammonium unless they have been recently fertilized, over-fertilized, or received fresh manure. High ammonium levels can be harmful to plants.

PHOSPHORUS: Optimal levels of phosphorus favor strong seedlings, abundant fruit, and colorful flowers. Phosphorus can be over-applied and through chemical reactions with other nutrients make them less available to plants. Runoff of phosphorus to lakes and ponds can promote harmful algal blooms. Turf requires very little phosphorus and recent legislation has banned its use on established home lawns unless a soil test shows a need.

POTASSIUM: Plant hardiness is improved with proper amounts of potassium. The over-application of potassium, although rarely an environmental concern, can increase soil salinity, particularly if the potassium source is potassium chloride.

CALCIUM and MAGNESIUM: Both calcium and magnesium increase soil pH. Limestone usually contains these nutrients and when the pH is optimal, calcium and magnesium are rarely needed.

SOLUBLE SALTS: Excessive salt levels can harm plants. Salts can come from deicing materials, flooding from seawater, and over-fertilization. In well drained soils, salt levels decline naturally by dilution with rainfall and irrigation water.

www.caes.state.ct.us

THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION
FERTILITY OF YOUR SOIL MEASURED BY THE MORGAN METHOD. A PRODUCT OF RESEARCH AT THIS STATION

John Q. Public
16 Soil Test Lane
Anywhere, CT 06000

THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION
123 HUNTINGTON ST.
P.O. BOX 1106
NEW HAVEN, CT 06504-1106
TELEPHONE (203) 974-8512 CAES-56-N Rev. 4/01

DATE	01/27/2014 PAGE 1 of: 1			TEST RESULTS - see back of report for explanation
LABORATORY NUMBER:	5555	5556	5557	
YOUR SAMPLE	1	2	3	
CROP TO BE GROWN	Lawn	Organic Vegetables	Hydrangeas (Blue)	
SOIL TEXTURE	Sandy Loam	Loamy Sand	Sandy Loam	
ORGANIC MATTER	Medium	Medium	Medium	
pH	6.5	5.6	6.9	
NITRATE NITROGEN	High (25 ppm)	High (18 ppm)	Medium (9 ppm)	
AMMONIUM NITROGEN	Medium (35 ppm)	Low (12 ppm)	Low (12 ppm)	
PHOSPHORUS	Medium (38 ppm)	Medium (38 ppm)	Medium High (50 ppm)	
POTASSIUM	Medium (120 ppm)	Low (60 ppm)	Low (60 ppm)	
CALCIUM	High (1600 ppm)	Medium High (1200 ppm)	Very High (>1600 ppm)	
MAGNESIUM	High (125 ppm)	High (125 ppm)	High (125 ppm)	
SOLUBLE SALTS	Low (0.1 ms/cm)	Low (0.5 ms/cm)	Medium (1.2 ms/cm)	

SUGGESTED TREATMENTS IN POUNDS PER 1000 SQUARE FEET

pH ADJUSTMENT	None	Limestone 90 lbs.	Sulfur 50 lbs.	
FERTILIZER GRADE	25-0-10*, April 25-0-10*, Sept.	Cottonseed meal 20 lbs	10-10-10, April	
FERTILIZER AMOUNT	4 lbs, April 4 lbs, Sept.	Bonemeal, 20 lbs Greensand, 20 lbs	15 lbs, April	

Remarks:
Other lawn fertilizers may be substituted. Choose a similar grade with at least 1/3 slow release nitrogen.
Vegetable gardens benefit from annual additions of organic materials such as compost, yard waste and manure.

Probably the most critical aspect of having your soil tested is obtaining a representative soil sample. A properly obtained sample consists of many samples from a given area that are mixed together. The following soil sampling procedure is suggested:

(continued on Page 4)

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(continued from Page 3)

1. Determine how many different areas are to be sampled. Variables such as cropping history, obvious differences in soil appearance, areas where soil was brought from offsite, wet or dry areas, or areas where plants are not growing well should be taken into account. Such areas should be sampled separately.
2. With a trowel, shovel, or auger, take thin slices or borings of soil from many places within an area to be sampled. Sample to a depth of 5 to 6 inches in gardens, or 3 to 5 inches in lawns or pastures. Mix the soil thoroughly and place one pint of the mixture in a sealed plastic bag. If the sample is very wet, let it dry before submission. Label the bag with your name, address, and what you want to grow. A soil submission form is available at www.ct.gov/caes/soiltesting. If any plant problems have occurred, briefly describe them. Request organic plant care suggestions or a salt test if needed.
3. Deliver or mail soil samples to Soil Tests, The Connecticut Agricultural Experiment Station, 123 Huntington Street, Box 1106, New Haven, CT 06504 1106, or 153 Cook Hill Road, Box 248, Windsor, CT 06095 0248.

The Connecticut Agricultural Experiment Station does not charge for soil tests. Typically a soil report will be mailed back to you within two weeks.

LOUIS A. MAGNARELLI MEMORIAL FUND ESTABLISHED

The Connecticut Agricultural Experiment Station Research Foundation, Inc., and the Board of Control of The Connecticut Agricultural Experiment Station have announced the establishment of the Louis A. Magnarelli Memorial Fund to commemorate the life and work of Dr. Louis A. Magnarelli.

The fund will be used to create a physical memorial on the New Haven campus to honor Dr. Magnarelli and to support the Louis A. Magnarelli Post-Doctoral Research Fellowship program.

More information can be found at www.ct.gov/caes/foundation.

FREE DENTAL CARE AVAILABLE APR 25-26

The Connecticut Mission of Mercy (CTMOM) will bring its popular two-day clinic to the XL Center in Hartford on April 25 and 26, 2014.

The clinic provides free dental care to the underserved and uninsured in Connecticut who would otherwise go without.

According to CTMOM's website, "Oral health is inseparable from general health and can affect a person's self-esteem, compromise their ability to work, attend school and lead a normal life."

Appointments are neither necessary nor taken. Patients will be taken on a first-come, first served basis.

This year's clinic will have 136 dental chairs, including a special section set aside on the clinic floor for pregnant patients with its own line and entrance.

Last year, the clinic and its 1,415 volunteers served 2,125 patients and provided \$1.3 million worth of donated care.

For more information, visit http://cfdo.org/cfdo1_ctmom.html.



Agriolution, Groton

Advertising Rates: Fifteen or fewer words: \$3.75 per insertion. More than 15 words: 25 cents per word per insertion. (Initial letters, hyphenated words, phone numbers, and addresses are counted separately.) Print or type copy. Advertisements accepted on a first-come, first-served basis; publication on a specific date cannot be guaranteed. Ads with payment must be received by noon the Friday before a publication date to be considered for insertion in that issue. Only ads of an agricultural nature with a Connecticut phone number will be accepted. Remittance with copy required. Make check or money order payable to the Connecticut Department of Agriculture.

CONNECTICUT DEPARTMENT OF AGRICULTURE
 165 Capitol Avenue, Hartford, CT 06106
www.CTgrown.gov www.CT.gov/doag
 860-713-2500

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