UTAH GIANT PUMPKIN GROWERS
The Pumpkin Vine

NOV 2009 **VOL IV ISSUE 3**

Andrew Israelsen & family with their 919 lb. winning pumpkin.

Our congratulations to Andrew Israelsen for winning this year's UGPG weigh off at Thanksgiving Point. After several years of coming close but having bad luck in one form or another, Andrew finally has a UGPG weigh-off win. Brent Wolfley made it a contest with his 877 lb second place pumpkin. The two pumpkins were close in their estimated weights with Andrews taping slightly larger. The Israelsen family was happy that the estimates held up. Andrew's pumpkin was grown his own 948 seed. It was a tough year for many UGPG growers, so it is a great accomplishment for Andrew to win the weigh off and reach the 900+ pound mark this year.

2009 UGPG Weigh-Off Results

	Grower		Weight		Hometown	Award
1	Israelsen	Andrew	919		Taylorsville	$600
2	Wolfley	Brent	877		Layton	$500
3	Fox	Kyle	742.5		Pleasant Grove	$400
4	Clark	Dana	632		Bountiful	$300
5	Bradley	David	583		Salt Lake City	$200
6	Miller	Chris	561		Salt Lake City	$100
7	Fox	Carrie	542		Pleasant Grove	$80
8	West	Jim	532		Pinesdale, MT	$60
9	Westwood	Neal	529.5		Alpine	$40
10	Card	Kevin	526.5		Alpine	$20
11	Tanner	Gordon	525		Kaysville	$20
12	Hughes	Brent	503.5		Centerville	$20
13	Leavitt	Richard	419.5		West Valley City	$20
14	Evans	Travis & Kira	405		West Valley City	$20
15	Carlson	Rick	393.5		West Jordan	$20
16	Wardle	Scott	392.5		Riverton	
17	Eiting	Mitch	370		Bountiful	
18	Rice	Brandon	363		Kaysville	
19	Richardson	Kristin	345		Salt Lake City	
20	Holman	Lori	313.5		Bountiful	
21	McConkie	Matt	311		Mountain Green	
22	Nelson	Terry	310.5		Sandy	
23	Chapman	Joe	307.5		West Jordan	
24	Clark	Carl	278.5		Holladay	
25	Wardle	Jason	257.5		Herriman	
26	Coster	Darlene	214.5		Draper	
27	Burlow	Tony	207		Salt Lake City	
28	Anothy	Buckley	206		Brigham City	
29	Saxton	Curt	181		Oakley	
30	Thatcher	Richard	169		Sunset	
31	Saxton	Caleb	160		Oakley	
32	Chad-Ford	Rebbeca	125.5	squash	Stansburry	

Other Official Weights

Wolfley	Brent	706.5		Layton	
Bradley	David	572.5		Salt Lake City	
Hughes	Brent	417		Centerville	
Miller	Chris	405		Salt Lake City	
Tanner	Gordon	386		Kaysville	
Nelson	Terry	240		Sandy	
Anothy	Buckley	193		Brigham City	
Evans	Travis & Kira	368.5	damaged	West Valley City	

Thanks to all who helped at the weigh off. It takes a good amount of work to bring one about. Everyone who helped, volunteered their time. We could list names but we'd probably forget someone and that would not be good.

Opps- We Screwed Up.
The results on page 2 are different than the ones we announced at the weigh off. We made a mistake at the weigh off in the rankings. 7th through 15th were the places affected. These things happen so please try to be understanding. Check out the prize money amounts listed on page 2. If you received the incorrect prize money, and want to receive the correct amount, please let us know and we'll straighten things out.

UGPG SEED AUCTION on Bigpumpkins.com will be Saturday February 13th. Go to bigpumpkins.com then click on chat, then auction chat. The auction will start at 6 pm Mountain Standard Time. All of the money raised at the auction goes to prize money at the weigh off.

The UGPG web site is down. We don't know how long it will be down. We are trying to find a server that will host it for us. When we get it back up the address is the same as it has always been. http://www.utahpumpkingrowers.com/

SOIL TEST
Getting your soil tested is usually a good idea, especially if you've encountered problems in the past. Fall is the recommended time to send in your soil sample for testing. A soil test will let you know if something is drastically wrong with your soil. We recommend Western Laboratories in Parma Idaho. The test you want is "Garden, Berries, Fruit Trees and Lawn Soil Report, Test 70". This tests your soil is tested for pH, texture, soluble salts *(ECe)*, Cation Exchange Capacity *(true)*, percent lime, percent organic matter, nitrates, ammonium, phosphorus *(alkaline soils – sodium bicarbonate extract, acid soils – Bray extract)*, potassium, calcium, magnesium, sodium, zinc, iron, manganese, copper, sulfates and boron. Go to http://www.westernlaboratories.com/ then soil/garden/submission form. You get a 10% discount ($41.40) if you include your check with the sample. The testing also includes recommendations specific to giant pumpkins so you know what to add when you get your results.

THE UGPG BOARD
Feel free to contact any of us with any questions, comments or concerns.

Name	phone	email address
Gordon Tanner, President	801-451-5002	s1tanner@yahoo.com
Kevin Card, Vice President	801-756-5711	highlandpumpkins@yahoo.com

WANT TO KNOW HOW TO GROW A REALLY BIG PUMPKIN?
Good Seed, Good Soil and Good Luck!

http://newfarm.rodaleinstitute.org/depts/NFfield_trials/2006/0413/compost.shtml

Your chance to VOTE for the New UGPG Leaders
Here are the results of the UGPG nominations. Yes it ended up being really easy on you.
Please don't vote for the same person for more than one position.
If you nominated someone but they aren't on the list it means that they declined the nomination.

President:

☐ Andrew Israelsen

☐ Other, write in _____

VP Weigh Off Coordinator:

☐ Kyle Fox

☐ Other, write in _____

VP Sponsorship Coordinator:

☐ Tyler Quigley

☐ Other, write in _____

Treasurer:

☐ Matt McConkie

☐ Other, write in _____

You can email your votes to: s1tanner@yahoo.com

Or fold this sheet over and mail it.

Utah Giant Pumpkin Growers
1393 S 750 East
Kaysville UT 84037-3006

2nd place 877 lbs. Brent Wolfley

3rd place 742.5 lbs. Kyle Fox

4th- Dana Clark 632 lbs

5th- David Bradley 583 lbs.

6th- Chris Miller 561 lbs

8th-532 lbs
Jim West

9th- 529.5 lbs
Neal Westwood

10th- 526.5 lbs
Kevin Card

12th-503.5 lbs.
Brent Hughes

Pictures from the 2009 UGPG weigh-off.

Results and Interpretation of Soil Tests from the University of Massachusetts

The goal of soil testing is to provide guidelines for the efficient use of soil amendments, such as lime and fertilizer. Those provided with your soil test are the best now available for the crop chosen. Problems directly related to disease, insects, and to some extent weather and cultural practices cannot be addressed by a soil test.

The Soil Sample - One of the most important steps in soil testing is obtaining the soil sample. It should represent the soil in which the plants are or will be growing. Randomly take several small samples across the area of concern, through a depth that contains or will contain the bulk of the plant's roots. A poor sample will result in bad recommendations.

SOIL TEST RESULTS

Soil pH, Buffer pH, and pH adjustments - Soil pH is a measure of the soils acidity and is a primary factor in plant growth. When pH is maintained at the proper level for a given crop, plants nutrients are at maximum availability, toxic elements are often at reduced availability, and beneficial soil organisms are most active. Most plants prefer a soil pH between 5.5 and 7.5 and the majority do best in the middle part of this range. Some notable acid-loving exceptions are blueberries, potatoes, and rhododendrons.

Due to various factor in which the soils of Utah have formed, soils here tend to be naturally alkaline (7.5-8.5). For this reason they must often be amended with materials capable of lowering the pH. Incorporating elemental sulfur or other compound that have sulfur is the most effective way to lower soil pH. In the soil the sulfur oxidizes to sulfuric acid. Adding Organic Matter also lowers pH.

Buffer pH is a measure of the soil's capacity to resist pH change after amendments have been added. Two soils with the same soil pH may have quite different buffer pH's, and thus one will require significantly more amendments than the other to obtain an optimal soil pH. Most Utah soils have a high pH buffer.

Cation Exchange Capacity and Percentage Base Saturation - Cation exchange capacity (CEC) is an important measure of the soil's ability to retain and to supply nutrients. The bulk of this capacity in limed New England soils resides in finely divided soil organic matter. A smaller contribution comes from the soil's clay particles. The basic nutrient cations (positively charged ions) of Calcium (Ca++), Magnesium (Mg++), and Potassium (K+), and the acidic cations of Aluminum and Hydrogen account for nearly all the adsorbed cations in the soil. Very sandy soils, low in organic matter, commonly have CEC's less than 5. New England soils with very high CEC's (greater than 40) are invariably rich in organic matter. A CEC between 10 and 15 is typical and usually

adequate. But giant pumpkin growers like higher numbers if they can get them.

CEC is important because it represents the primary soil reservoir of readily available Potassium, Calcium, Magnesium and several micronutrients. It also helps to prevent their leaching. The ease with which a plant gains access to these nutrients depends somewhat on the relative percentages of the adsorbed cations. For this reason it is suggested that percentage saturation levels be held within loosely defined ranges. For example, a soil with base saturations of Calcium 70%, Magnesium 12% and Potassium 4% would is considered balanced for most crops and has a soil pH of about 6.5.

Individual Nutrients

Nitrogen (N) - Nitrogen is **essential** to nearly every aspect of plant growth. Nitrogen is absorbed from the soil as nitrate (NO3-) and ammonium (NH4+). This soil test estimates their current levels. Fertilizer recommendations are not generally made on the basis of these measurements because their levels can fluctuate greatly with soil and weather conditions over short periods of time. Instead, they are used to assess extremes of nitrogen fertility. For example, very high ammonium levels can be toxic to the roots of many plants, particularly if the soil pH is above 7. Very high levels of either form may coincide with fertilizer "burn." Recommendations are made on the presumptions that very little nitrogen remains in the soil after the growing season and that most crops require between 1 and 4 lbs of nitrogen per 1000 square feet per year. Adjustments are often made for soils recently or continuously supplied with manure or compost, which contain nitrogen that will be released during the growing season.

Phosphorus (P) or Phosphorus Pentoxide (P2O5) - Among other important functions, phosphorus provides plants with a means of using the energy harnessed by photosynthesis to drive its metabolism. A deficiency of this nutrient can lead to impaired vegetative growth, weak root systems, and fruit and seed of poor quality and low yield. Soil phosphorus exists in a wide range of forms. Some is present as part of soil organic matter and becomes available to plants as the organic matter decomposes. Most inorganic soil Phosphorus is bound tightly to the surface of soil mineral particles. Warm, moist, well aerated soils at about pH 6.5 optimize the release of both these forms. Plants require fairly large quantities of phosphorus, but the levels of phosphorus available to plant roots at any one time is quite low. Soil tests attempt to assess the soil's ability to supply phosphorus from bound forms during the growing season.

Potassium (K) or Potash (K2O) - Potassium rivals nitrogen as the nutrient element absorbed in greatest amounts by plants. Like nitrogen, a relatively large proportion of plant-available potassium is taken up by crops each growing season. Plants deficient in potassium are unable to utilize nitrogen and water efficiently, and are more susceptible to disease. Most available potassium exists as an exchangeable cation (see above). The slow release of potassium from

native soil minerals can replenish some of the potassium lost by crop removal and leaching. This ability, however, is limited and variable. Fertilization is often necessary to maintain optimum yields.

Calcium (Ca) - Calcium is essential in the proper functioning of plant cell walls and membranes. Sufficient calcium must also be present in actively growing plant parts, especially storage organs such as fruits and roots. Properly limed soils with a constant and adequate moisture will normally supply sufficient calcium to plants. High humidity and poor soil drainage hinder calcium movement into these plant parts and should be avoided.

Magnesium (Mg) - Magnesium acts together with phosphorus to drive plant metabolism and is part of chlorophyll, a vital substance for photosynthesis. Like Calcium, Magnesium is ordinarily supplied through liming. Low magnesium levels in many soils will normally not cause problems provided the exchangeable cations (see above) are in good balance. If Mg levels are low and lime is required, dolomitic lime (rich in Mg) will be recommended. If Mg is low and lime is not required, Epsom salt (magnesium sulfate) may be incorporated at a rate of 5-10 lbs/1000 square feet.

Micronutrients - The micronutrients are elements essential to plants, but required in very small amounts. In most properly limed soils they are available in sufficient quantities. Five of these (iron, manganese, zinc, copper, and boron) are tested routinely . Micronutrient fertilizer recommendations are not available. Extremely high values, however, are noted.

Aluminum - Aluminum is not an essential nutrient for plants. At elevated levels it can be extremely toxic to plant roots and limit the plant's ability to take up phosphorus. Extractable aluminum increases greatly at soil pH's below 5.5. Proper liming, however, will lower aluminum to acceptable levels. Aluminum sensitivity varies greatly with plant type. Acid-loving plants, such as rhododendrons, can tolerate very high aluminum levels. Lettuce, carrots and beets are very sensitive. Hydrangea, a non-sensitive plant, produces blue flowers at low pH and pink flowers at high pH due to the effect of aluminum on pigment formation.

Toxic Heavy Metals - This laboratory routinely tests lead (Pb) and cadmium (Cd). Lead is naturally present in soils in the range of 15 to 40 parts lead per million parts soil (ppm). At these levels it presents no danger to people or plants. Soil pollution with lead-based paints and the tetraethyl lead of past automotive fuels have increased soil lead levels to several thousand ppm in some places. Unless the total lead level in your soil exceeds 150 ppm, it is simply reported as low and can be considered safe. Values above 300 ppm are potentially dangerous to people. In such cases consult the separate insert on soil lead levels.

Cadmium is extremely toxic to both plants and animals. It is naturally present in soils at safely low levels (less than 1 ppm). Industrial discharges of cadmium, however, often cause municipal sewage sludge to contain elevated levels of cadmium. Composted sludges are often used as soil amendments. Although safe upper limits of cadmium for both plants and animals have not been established, monitoring soil Cd levels helps avoid excesses when such materials are used. Unless the cadmium in your soil exceeds 1 ppm it is not reported.

Soluble Salts - Soluble salts (SS), such as those used on roads to promote melting and those present in many commercial (and some natural) fertilizers, can cause severe water stress and nutritional imbalances in plants. Generally, seedlings are more sensitive than established plants to elevated SS levels and great variation exists between plant species. Most soils have values between 0.08 and 0.50 by the method used by this lab. The middle of this range is typical of most fertile mineral soils. Values higher than 0.60 may cause damage to sensitive plants (such as onions, etc.). A SS level can change rapidly in the soil due to leaching (washing out), so evaluating its significance must consider the effects of time and growing conditions. Excessive SS levels can often be corrected by leaching with liberal amounts (2 to 4 inches) of fresh water. Normal off season precipitation will usually correct salt problems resulting from over-fertilization.

GENERAL COMMENTS- Implementing the recommendations given in the enclosed report will correct the nutrient status of your soil for the plant type indicated. It may or may not solve a given horticultural plant growth problem. Other cultural factors may need to be evaluated. Many reports provide both "natural and organic" and "synthetic chemical" fertilizer alternatives.

The numerical results of this soil test reflect the properties of your soil and the analytical procedures used by the UMass lab. One cannot directly compare the extracted nutrient levels of one laboratory to those of another, because different labs may use different procedures. However, the evaluation of the results (whether they represent low, medium or high levels) and the accompanying recommendations should be consistent between labs if all other factors of crop production are the same.

SOIL IMPROVEMENT *by Duane Hatch,* USU Extension Horticulturist

Clay soils have the ability to hold moisture well (often too well) and usually contain more nutrients than light soils. They dry slowly in the spring so early planting of crops is not possible. Water penetration is slow so irrigation water often runs off instead of entering the root zone.
Sandy soils are easy to work but have low water holding capacities, so plants may suffer from moisture stress in hot weather. Nutrients may be lost as irrigation water moves downward through the soil.

These almost opposite drawbacks of both soil types can be corrected by the same technique-adding organic matter. Fine clay particles can be physically separated by coarse organic material. Nutrient and water holding qualities of sandy soils can be increased. As the organic matter breaks down, its components continue to have soil improving characteristics. Begin by incorporating 2 to 3 inches of organic matter 6 to 8 inches deep*. This application will not last forever and you should plan to add about 2 more inches each year.* With heavy soils, you'll need 2 or 3 years to see much of an improvement. Summer mulching or compost addition will be helpful.* Giant pumpkins growers like to add more if they can up to 6-8 inches per year.

SOURCES OF ORGANIC MATTER

You will need a lot to do the job so look for abundant, inexpensive materials. **Leaves** from deciduous trees may be gathered in the fall for composting and/or soil incorporation. Needles from conifer trees may also be used. **Bark, sawdust, shavings, and other wood products** are less likely to contain weed seeds than are manures. **Peatmoss** is an excellent material, high in organic matter and somewhat acidic. Cost is a major factor for the quantities needed. **Manure** may be available and is an excellent source of organic matter. If well handled, it may contain substantial nutrients when used in sufficient quantities. It may also be a source of viable weed seeds that survived the trip through the animal's digestive tract. **Straw,** depending on the kind, may also create weed problems. **Grass clippings, green manure crops and kitchen vegetable trimmings** may be used. These tissues are mostly water, their cells are not mature and don't contain the lignin and waxes which produce long term soil improvement. **Grass clippings** are an excellent material to mulch the garden soil surface to reduce weed problems and to conserve moisture. Don't apply a lot at once. A ½ inch layer will dry out quickly and not get slimy.

ADDING NITROGEN

Large quantities of mature, woody type products such as sawdust, bark, leaves, straw, etc., will promote nitrogen deficiency in plants because of their high carbon content. Overcome this problem by adding a nitrogen fertilizer when incorporating them into the soil.

Ammonium sulfate (21% nitrogen) is readily available and quite inexpensive. Use 1 pound (1 pint) per 100 square feet for each 1 inch of woody mulch mixed with the soil. You may substitute pound of ammonium nitrate (34%) or ½ pound of urea (45%) for the one pound of ammonium sulfate.

Manures vary in their quality. If mixed with large amounts of bedding materials, there may not be enough nitrogen to decompose it and feed the crop. Use one-half the nitrogen rate suggested above. Use this one-half rate when a green manure crop is turned under also. If the manure is quite fresh and/or well protected from leaching by rains and other weather elements it may not need added nitrogen. For more details, refer to the "Mulches and Compost" fact sheet.

Continued on front page

Continued from page 10

TOUGH CLAY SOILS

Although it may be expensive and difficult to apply, a 2-inch layer of sand, **in addition** to the organic matter, will help your ability to garden in soils with a high clay content. If sand is used without the organic matter, low grade concrete may be formed with the fine clay particles acting as cement!

SOIL AMENDMENTS

Soil preparation information from more humid areas may suggest time to neutralize acid soils. ***Lime is not needed in Utah soils*** because nearly all have an alkaline reaction. ***Dolomite*** is another form of lime. ***Gypsum*** is neutral in its reaction and will not acidify alkaline soils. It may be promoted as an “alkali fighter.” That reference is to the high sodium soils or “black alkali” areas where crops grow poorly, if at all. It is not needed on the general range of garden soils in Utah. Don’t expect gypsum to alter the soil structure and improve its workability. Use organic matter to do that.

Coffee grounds make a great soil amendment. Starbucks and most other coffee shops give away their used grounds. Starbucks coffee analysis is:
Nitrogen: 2.28 % **Phosphorus:** 0.06 % **Potassium:** 0.6 %
The pH of the coffee grounds is slightly acidic at 6.2 on the pH scale, which will help lower the pH of our alkaline Utah soils.

UTAH GIANT PUMPKIN GROWERS
1393 S 750 E
KAYSVILLE, UT 84037