

**Agricultural Service Laboratory  
Clemson University  
2011 Annual Report**

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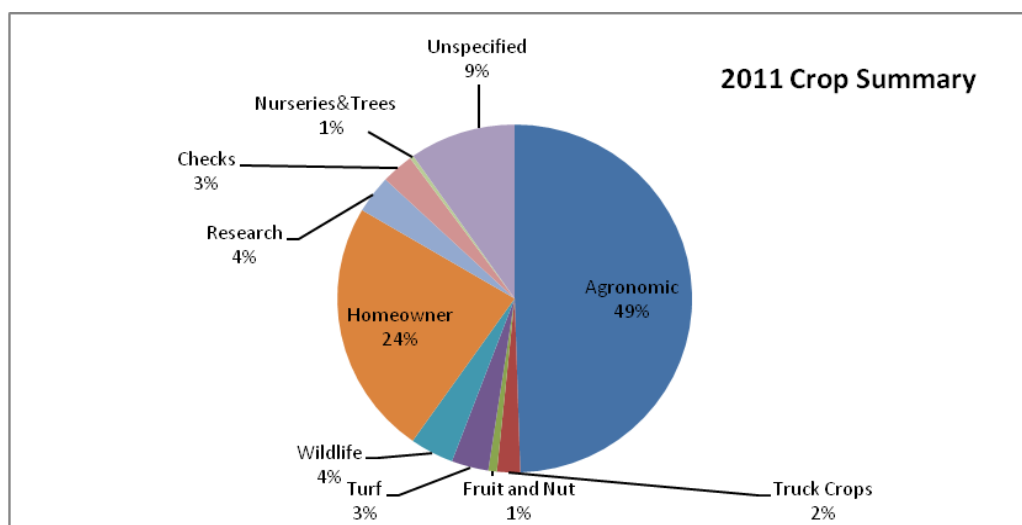
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**Soil**

| <b>Counties</b> | <b>Sample Number Totals</b> | <b>Large Area Crop Codes</b> | <b>Small Area Crop Codes</b> | <b>Diagnostic Reports</b> |
|-----------------|-----------------------------|------------------------------|------------------------------|---------------------------|
| Abbeville       | 256                         | 155                          | 101                          | 0                         |
| Aiken           | 1663                        | 510                          | 1153                         | 0                         |
| Allendale       | 130                         | 127                          | 3                            | 0                         |
| Anderson        | 832                         | 376                          | 454                          | 2                         |
| Bamberg         | 1572                        | 1511                         | 59                           | 2                         |
| Barnwell        | 299                         | 196                          | 103                          | 0                         |
| Beaufort        | 984                         | 184                          | 798                          | 2                         |
| Berkeley        | 552                         | 208                          | 343                          | 1                         |
| Calhoun         | 768                         | 640                          | 106                          | 22                        |
| Charleston      | 1786                        | 422                          | 1325                         | 39                        |
| Cherokee        | 230                         | 151                          | 76                           | 3                         |
| Chester         | 242                         | 197                          | 45                           | 0                         |
| Chesterfield    | 255                         | 183                          | 71                           | 1                         |
| Clarendon       | 523                         | 364                          | 158                          | 1                         |
| Colleton        | 409                         | 216                          | 193                          | 0                         |
| Darlington      | 1104                        | 884                          | 220                          | 0                         |
| Dillon          | 186                         | 137                          | 49                           | 0                         |
| Dorchester      | 797                         | 324                          | 471                          | 2                         |
| Edgefield       | 238                         | 193                          | 45                           | 0                         |
| Fairfield       | 159                         | 112                          | 38                           | 9                         |
| Florence        | 1229                        | 684                          | 545                          | 0                         |
| Georgetown      | 1165                        | 630                          | 525                          | 10                        |
| Greenville      | 2214                        | 635                          | 1579                         | 0                         |
| Greenwood       | 544                         | 242                          | 302                          | 0                         |
| Hampton         | 2051                        | 1879                         | 172                          | 0                         |
| Horry           | 2135                        | 666                          | 1463                         | 6                         |
| Jasper          | 263                         | 79                           | 184                          | 0                         |
| Kershaw         | 1355                        | 699                          | 280                          | 376                       |
| Lancaster       | 419                         | 223                          | 195                          | 1                         |
| Laurens         | 399                         | 253                          | 145                          | 1                         |

|                 |              |              |              |             |
|-----------------|--------------|--------------|--------------|-------------|
| Lee             | 1138         | 1100         | 38           | 0           |
| Lexington       | 2649         | 1164         | 1395         | 90          |
| Marion          | 405          | 357          | 47           | 1           |
| Marlboro        | 704          | 681          | 23           | 0           |
| McCormick       | 68           | 13           | 55           | 0           |
| Newberry        | 1248         | 1021         | 227          | 0           |
| Oconee          | 503          | 235          | 264          | 4           |
| Orangeburg      | 669          | 491          | 175          | 3           |
| Pickens         | 313          | 95           | 218          | 0           |
| Richland        | 1709         | 354          | 1350         | 5           |
| Saluda          | 513          | 453          | 60           | 0           |
| Spartanburg     | 1594         | 637          | 925          | 32          |
| Sumter          | 1430         | 708          | 655          | 67          |
| Union           | 226          | 148          | 78           | 0           |
| Williamsburg    | 222          | 181          | 40           | 1           |
| York            | 795          | 369          | 424          | 2           |
| Prepaid         | 1409         | 614          | 736          | 59          |
| Accounts        | 13533        | 10305        | 608          | 2620        |
| SubTotal        | 53887        | 32006        | 18519        | 3362        |
| Research        | 2024         | 767          | 129          | 1128        |
| Checks & Blanks | 1698         | 4            | 2            | 1692        |
| <b>Total</b>    | <b>57609</b> | <b>32777</b> | <b>18650</b> | <b>6182</b> |

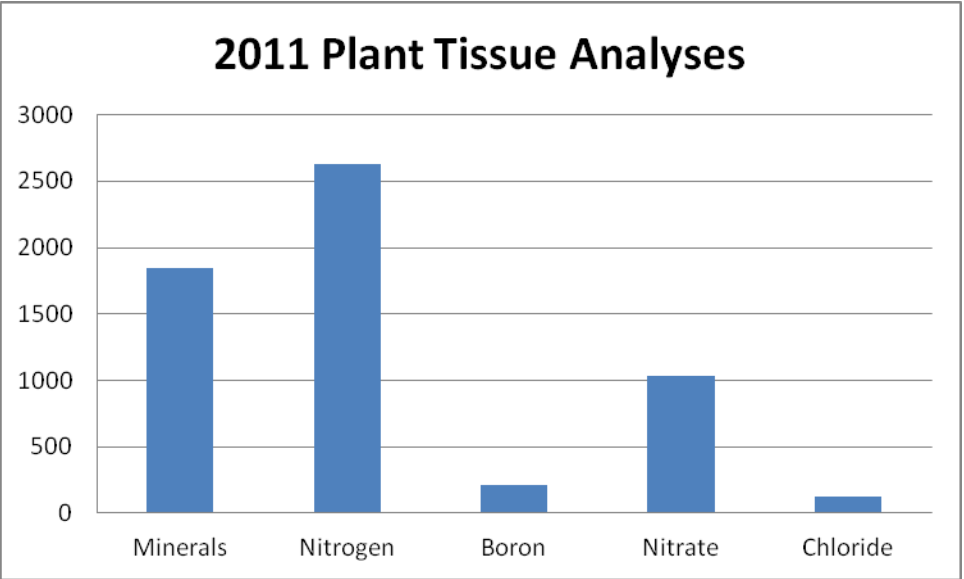
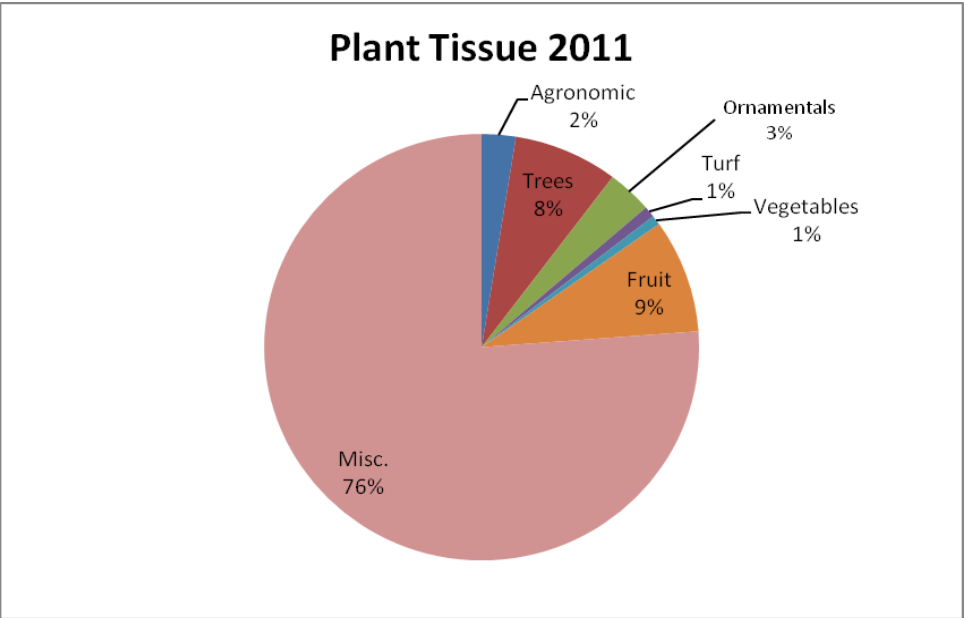


| Other Soil Analyses        | Total |
|----------------------------|-------|
| Organic Matter             | 522   |
| Nitrate Nitrogen           | 1896  |
| Soluble Salts              | 634   |
| Extractable Sulfate Sulfur | 18    |
| pH Only                    | 25    |
| Pond Bottom                | 50    |
| Shrimp Pond                | 0     |
| Soilless Mixes             | 133   |
| Bulk Density               | 2     |

## Plant Tissue

| Counties                      | Total       |
|-------------------------------|-------------|
| Aiken                         | 4           |
| Anderson                      | 2           |
| Bamberg                       | 1           |
| Barnwell                      | 1           |
| Berkeley                      | 5           |
| Calhoun                       | 4           |
| Cherokee                      | 84          |
| Clarendon                     | 10          |
| Darlington                    | 2           |
| Dorchester                    | 3           |
| Edgefield                     | 21          |
| Greenville                    | 3           |
| Hampton                       | 2           |
| Horry                         | 9           |
| Lee                           | 1           |
| Lexington                     | 17          |
| Oconee                        | 5           |
| Richland                      | 1           |
| Saluda                        | 17          |
| Spartanburg                   | 50          |
| Sumter                        | 3           |
| Sub Total                     | <b>245</b>  |
| Prepaid                       | 22          |
| Accounts                      | 639         |
| Research                      | 2152        |
| <b>Total Samples Analyzed</b> | <b>3058</b> |

| <b>Crop</b>             | <b>Total</b> |
|-------------------------|--------------|
| Alfalfa                 | 3            |
| Canola                  | 1            |
| Corn Leaf               | 2            |
| Corn Whole              | 53           |
| Peanuts                 | 3            |
| Small Grain             | 15           |
| <b>Total Agronomic</b>  | <b>77</b>    |
| Deciduous               | 2            |
| Evergreen               | 2            |
| Pine, Longleaf          | 233          |
| <b>Total Trees</b>      | <b>237</b>   |
| Roses                   | 9            |
| Hydrangea               | 8            |
| Lily                    | 84           |
| Poinsettia              | 1            |
| <b>Total Ornamental</b> | <b>102</b>   |
| Centipede               | 1            |
| Fescue                  | 2            |
| Zoysia                  | 1            |
| Orchard grass           | 1            |
| Bentgrass               | 11           |
| Bermudagrass            | 10           |
| <b>Total Turf</b>       | <b>26</b>    |
| Lettuce                 | 1            |
| Peppers                 | 4            |
| Tomatoes, Greenhouse    | 17           |
| <b>Total Vegetables</b> | <b>22</b>    |
| Blueberries             | 16           |
| Grapes – Muscadine      | 1            |
| Strawberries            | 131          |
| Peaches                 | 108          |
| Pecans                  | 8            |
| <b>Fruit and nuts</b>   | <b>264</b>   |
| Misc.                   | <b>2330</b>  |
| <b>Total All</b>        | <b>3058</b>  |

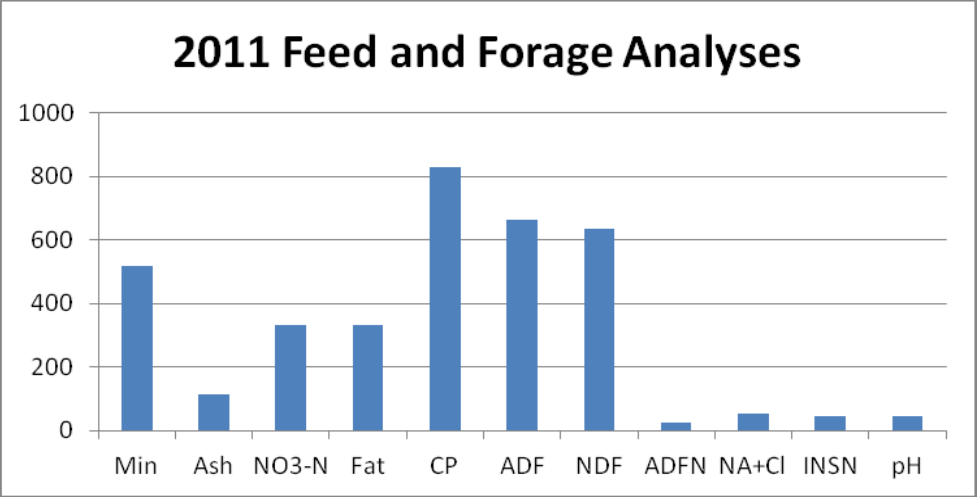
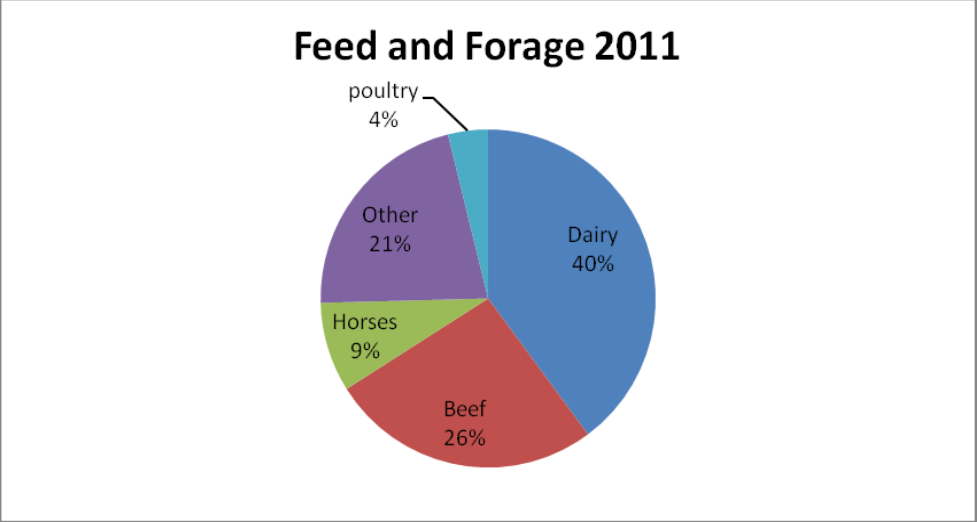


*Minerals include phosphorus, potassium, calcium, magnesium, zinc, copper, manganese, iron, sulfur sodium, and aluminum*

## Feed and Forage

| Counties                      | Total       |
|-------------------------------|-------------|
| Abbeville                     | 6           |
| Aiken                         | 19          |
| Anderson                      | 31          |
| Calhoun                       | 9           |
| Charleston                    | 2           |
| Cherokee                      | 10          |
| Chester                       | 4           |
| Chesterfield                  | 5           |
| Colleton                      | 1           |
| Darlington                    | 4           |
| Dillon                        | 1           |
| Dorchester                    | 3           |
| Florence                      | 5           |
| Greenville                    | 3           |
| Greenwood                     | 50          |
| Hampton                       | 23          |
| Horry                         | 10          |
| Kershaw                       | 7           |
| Lancaster                     | 5           |
| Laurens                       | 6           |
| Lee                           | 1           |
| Lexington                     | 7           |
| Marion                        | 1           |
| Marlboro                      | 1           |
| McCormick                     | 1           |
| Newberry                      | 59          |
| Oconee                        | 8           |
| Pickens                       | 1           |
| Richland                      | 1           |
| Saluda                        | 24          |
| Spartanburg                   | 22          |
| Sumter                        | 3           |
| Union                         | 2           |
| York                          | 3           |
| Sub Total                     | <b>343</b>  |
| Prepaid                       | 77          |
| Accounts                      | 460         |
| Research                      | 232         |
| <b>Total Samples Analyzed</b> | <b>1112</b> |

| <b>Total Number</b> | <b>Feed Type</b>       |
|---------------------|------------------------|
| 166                 | Hay Bermuda            |
| 6                   | Hay Bahia              |
| 12                  | Hay Fescue             |
| 8                   | Hay Legume             |
| 5                   | Hay Sorghum            |
| 83                  | Hay Mixed              |
| 48                  | Hay Small Grain        |
| 84                  | Pasture Grass          |
| 77                  | Silage Corn            |
| 25                  | Silage Sorghum         |
| 15                  | Silage Legume          |
| 123                 | Silage Small Grain     |
| 100                 | Silage Grass           |
| 2                   | Grain Oats             |
| 3                   | Grain Corn             |
| 1                   | Grain Sorghum          |
| 4                   | Grain Mixed            |
| 10                  | Mixed Ration-Corn      |
| 0                   | Mixed Ration-Sm Grain  |
| 1                   | Mixed Ration – Sorghum |
| 8                   | Mixed Ration - Grass   |
| 1                   | Hominy                 |
| 191                 | Other                  |
| 136                 | Complete Feed          |
| 1                   | Distillers Grain       |
| 2                   | Soybean Hulls          |



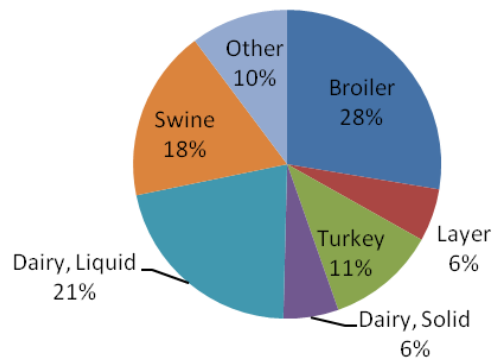
***Min includes phosphorus, potassium, calcium, magnesium, zinc, copper, manganese, iron, and sulfur***



## Animal Waste

|                               |             |
|-------------------------------|-------------|
| Abbeville                     | 4           |
| Aiken                         | 18          |
| Anderson                      | 5           |
| Bamberg                       | 20          |
| Barnwell                      | 16          |
| Berkeley                      | 1           |
| Calhoun                       | 19          |
| Cherokee                      | 4           |
| Chester                       | 17          |
| Chesterfield                  | 20          |
| Clarendon                     | 16          |
| Darlington                    | 10          |
| Dillon                        | 15          |
| Dorchester                    | 10          |
| Edgefield                     | 4           |
| Florence                      | 3           |
| Georgetown                    | 3           |
| Greenville                    | 1           |
| Greenwood                     | 2           |
| Hampton                       | 15          |
| Horry                         | 16          |
| Kershaw                       | 16          |
| Lancaster                     | 13          |
| Laurens                       | 8           |
| Lee                           | 71          |
| Lexington                     | 93          |
| Marion                        | 3           |
| Marlboro                      | 4           |
| McCormick                     | 1           |
| Newberry                      | 59          |
| Oconee                        | 27          |
| Orangeburg                    | 25          |
| Richland                      | 5           |
| Saluda                        | 30          |
| Spartanburg                   | 10          |
| Sumter                        | 10          |
| Williamsburg                  | 1           |
| York                          | 6           |
| Sub Total                     | <b>598</b>  |
| Prepaid                       | 260         |
| Accounts                      | 259         |
| Research                      | 20          |
| Virginia Contract             | 824         |
| <b>Total Samples Analyzed</b> | <b>1961</b> |

## In State Animal Waste 2011

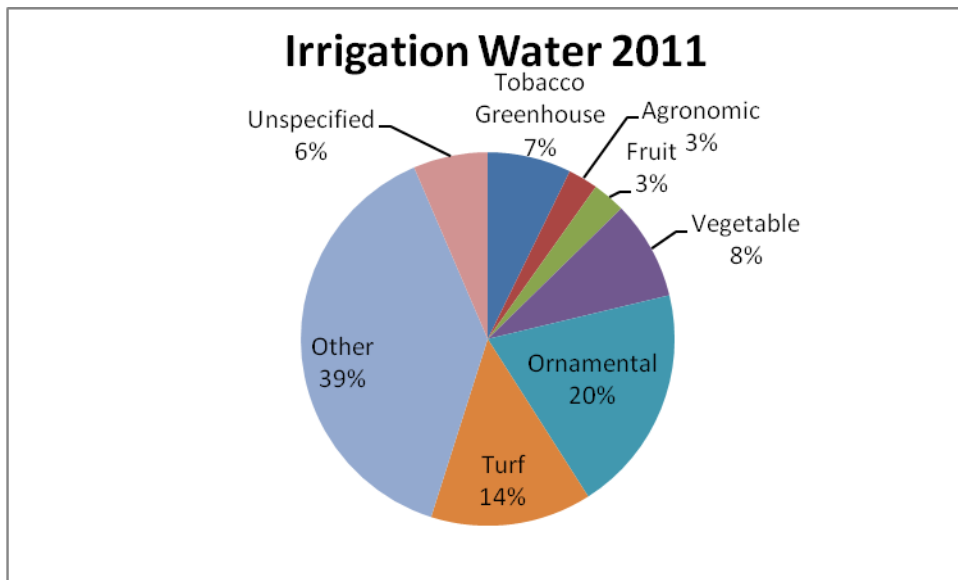


| In State Animal Waste Analyses | Total |
|--------------------------------|-------|
| Routine                        | 1130  |
| Nitrate Nitrogen               | 87    |
| Arsenic                        | 23    |
| CCE                            | 47    |
| pH                             | 241   |
| Soluble P                      | 278   |

## Irrigation Water

| <b>Counties</b>               | <b>Total</b> |
|-------------------------------|--------------|
| Anderson                      | 1            |
| Barnwell                      | 1            |
| Beaufort                      | 5            |
| Calhoun                       | 1            |
| Charleston                    | 79           |
| Chester                       | 2            |
| Clarendon                     | 5            |
| Colleton                      | 1            |
| Dorchester                    | 1            |
| Edgefield                     | 1            |
| Georgetown                    | 30           |
| Hampton                       | 1            |
| Horry                         | 23           |
| Laurens                       | 1            |
| Lexington                     | 2            |
| Marion                        | 1            |
| Pickens                       | 1            |
| Richland                      | 9            |
| Saluda                        | 1            |
| Spartanburg                   | 3            |
| Sumter                        | 3            |
| Williamsburg                  | 1            |
| Sub Total                     | <b>173</b>   |
| PrePaid                       | 43           |
| Accounts                      | 154          |
| Research                      | 16           |
| <b>Total Samples Analyzed</b> | <b>386</b>   |

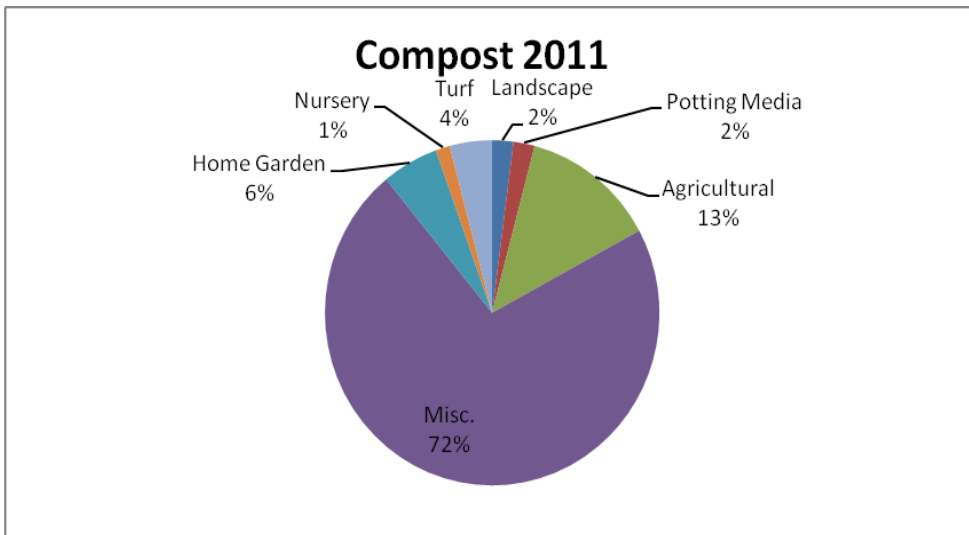
| <b>Irrigation Water Analyses</b>   | <b>Total</b> |
|--|--------------|
| Special (pH, EC, P, K, Ca, Mg, Fe, Zn, Cu, Mn, Na, Cl, B, S, NO3-N, HCO3, and CO3) | 345          |
| Standard (pH plus EC)  | 41           |



## Compost

|              | <b>Total</b> |
|--------------|--------------|
| PrePaid      | 13           |
| Accounts     | 7            |
| County       | 24           |
| Research     | 102          |
| <b>Total</b> | <b>146</b>   |

| <b>Compost Analyses</b>  | <b>Total</b> |
|--|--------------|
| Standard (Moisture, N, C, pH, OM, EC)  | 52           |
| Special (Moisture, N, C, pH, OM, EC, NH4-N, P, K, Ca, Mg, S, Zn, Cu, Mn, Fe, Na) | 34           |
| Carbon/Nitrogen  | 146          |
| Nitrate Nitrogen   | 6            |



## Other

| <b>Sample Type</b>                  | <b>Total Samples</b> | <b>Various Analyses</b>  |
|-------------------------------------|----------------------|--|
| Total solutions and other materials | 6064                 | P, K, Ca, Mg, Zn, Cu, Mn, Fe, S, Al, B, Cd, Cr, Se, Mo, Ni, As, Si, Ag, NH4-N, TKN, Ash, other |

## **National Exchange Programs**

- A. The National Forage Testing Association (NFTA) submits one sample quarterly for analysis of dry matter, protein, minerals, acid detergent fiber, and neutral detergent fiber. The lab is certified for forage testing through NFTA.
- B. The Association of American Feed Control Officials submits one sample monthly for analysis of protein, minerals, fat, ash, acid detergent fiber and neutral detergent fiber.
- C. The National Manure Analysis Proficiency Program submits samples quarterly for analysis of NH<sub>4</sub>-N, total N, minerals, and dry matter. The Ag Service Lab is a certified manure testing lab.
- D. The Agricultural Service Laboratory is a member and certified as a participant of the Agriculture Laboratory Proficiency Program for Soil, Plant, and Water Analysis Laboratories which provides quarterly exchanges of plant, soil, and water samples.