



MAGICAL GARDENING¹

by DENNIS JUNG*

Wizards and Witches love magical gardening in Frederick County as much as Muggles (non-magical people) love plain gardening. Our location is close to the Chesapeake Bay and the Catoctin Mountains, safe habitats for magical plants and creatures such as Devil's Snare, Gillyweed, Fanged Geraniums, Sea Serpents, Unicorns and Dragons, that is, when coupled with *Disillusionment Charms* to keep Muggles from seeing them. It's rumored there's a special agreement between the Ministry of Magic and the Secret Service to allow use of magical flora and fauna around Camp David to prevent infiltration by dark forces. In exchange the Frederick Fitchies are allowed to use the area for Quidditch practice when the government Muggles are not present. If asked about this the White House spokesman will innocently deny it, since his memory has been charmed.

There are many similarities in gardening performed by Wizards and Muggles. Both practice the principles of **IPM**. Muggles follow *Integrated Pest Management*, a common sense ecological approach to managing garden problems that involves understanding biological factors, such as pests and diseases, and nonbiological factors, such as the weather, soil composition, nutrients, and light exposure, that influence plant growth. The idea is to live within nature and tolerate some losses and minor infestations rather than trying to completely control all manner of life in your garden. Wizards also use these principles but follow *Integrated Pest Magic* as formulated by their Pest Advisory Bureau. The impact of both Wizard and Muggle gardening and pest management decisions extend far beyond their property lines.

Wizards, like Muggles, practice *study, spy, squish*. This means a) know your plants, b) monitor them closely for signs and symptoms of problems, and c) take the least toxic action to remedy problems. The simplest solution can be hand picking insects and egg masses off your plants and squishing the pests or dropping them into a container of soapy water. Muggles can easily squish egg masses on leaves and tomato hornworms but it's a real job for Wizards to squish a ten-inch long Flobberworm found on a cabbage.

Both Wizards and Muggles face a variety of pests and problems in the garden. Wizards have to confront the walking Bundimun fungus, Horklumps, Chizpurples, Gnomes digging up plant roots, and Imps - although they eat insects they also trip people. Muggles, of course, have to deal with leaf-skeletonizing Japanese beetles, Sudden Oak Death, poison ivy, and invasive plants like the tree-of-heaven and mile-a-minute vine. Invasive plants ("dark side plants") reproduce rapidly, spread over large areas, and have few natural controls to keep them in check.

EQUAL ACCESS PROGRAMS
EQUAL OPPORTUNITY EMPLOYER

Snails and slugs are among the most bothersome pests in many gardens. This year slugs have overrun our garden ever since my nephews playfully invoked the *Slug-vomiting Charm* on each other. Some think that slugs were first formed when a too strong *Jelly-Legs Jinx* was used on a particularly annoying and unfortunate House-elf. In the Muggle garden only a few of the many species of slugs and snails present a serious problem. These include the gray, tawny, and spotted garden slugs and the brown garden snail, which was introduced from France in the 1850s for use as food. If your snails speak with a French accent, you can bet they are the imported brown snails. In addition, in the Wizard garden there are Flesh Eating Slugs and Streelers, giant snails that change color hourly and leave a slime trail that burns all vegetation over which it passes.

Voles, or meadow mice, are common pests to Muggles and Wizards. They live in burrows, reproduce rapidly, and feed from underground on prized perennials that eventually topple over. They are immune from charms, curses and jinxes for the most part. Many wizards refer to them as the mouse-like creatures who must not be named, since voles appear to have gone over to the dark side. Muggles have tried many strategies to defeat them including a host of poisons and repellents with limited success. Pet cats and Jarveys, rude-talking ferret-like magical creatures, seem to be somewhat effective in keeping vole populations down.

In the Muggle garden bees are the major pollinator while Billywigs dominate in magical gardens. A Muggle bee sting causes a swelling and possible serious allergic reaction, while a Billywig bite causes giddiness and levitation, and in the case of severe allergic reaction, permanent floating may result.

Charms are very useful in the magical garden. Wizards use the *Drought Charm* to dry up wet areas and stop erosion from runoff during heavy rainfall. Muggles should consider constructing a rain garden to slow water runoff and reduce lawn area. A rain garden is simply a shallow depression in the yard that's planted with native wetland or prairie wildflowers and grasses. Rain gardens make good use of runoff, conserve water, and protect downstream lakes and rivers.

Diffindo, the severing charm, is very useful for pruning. Wizard pruning follows the same rules Muggles follow. There is a proper time of year and technique for each species. Prune to train newly planted trees and shrubs for better establishment, maintain plant health, improve flowering, and restrict growth. Avoid late summer pruning as it stimulates new growth and reduces the supply of nutrients stored for growth next spring.

Mobdiarbus is used by Wizards to move a tree, and *Orchideous* is employed to conjure up a bouquet of flowers, especially handy when a Wizard has forgotten an important anniversary or birthday. Unfortunately, there are no simple alternatives but hard work and embarrassment for Muggles.

Stealth Sensoring Spells can be placed on garden flowers and vegetables by Wizards to stop deer from sneaking into the garden for a meal. Deer present a bigger problem for Muggles who can decrease deer damage by use of fencing, repellents, scare tactics, or by selecting plants that deer tend to avoid.

Since we have many trees in our front yard, we use *Cross-Species Switching Charms* in the fall to change deciduous trees into evergreens to avoid having to pick up the approximately quarter-million leaves that drop from each mature oak tree. We use *Memory Charms* on our Muggle neighbors to make them think we are picking up leaves like they're doing while we're really drinking pumpkin juice on our deck. Muggles have several ways to handle leaves: compost them in piles; compost them in bags - just add some manure or compost, make ventilation holes and in the spring they should be largely decomposed; shred them and use as a mulch - a 2 to 3 inch layer provides good weed control; or directly incorporate them into garden soil along with a nitrogen source to prevent nitrogen tie-up.

Wizards can change the colors of flowers to fit mood changes and avoid color clashes by using a *Color Change Charm*. This is simple since very small changes in the chemical structure of flower pigments result in large changes in color. For example, the addition of one oxygen-hydrogen group to the pigment that makes geraniums red converts it into a violet color, and the addition of two such groups make it blue. Although these chemical changes are easier for wizards to do, Muggle plant biotechnologists have performed this magic using gene transfer to change roses and carnations from red to blue, a long sought color they had never been before. It's Muggle Magic through chemistry!

Muggles also use what appears to be a magical dust, aluminium sulfate, to change the color of their Bigleaf hydrangeas from red to blue. They simply drench the soil around the plant with a solution (1 tablespoon/gallon) in April or May. Presto! Blue hydrangeas in June. More Muggle magic!

The Ministry of Magic does not allow the use of magic when competing against Muggles. *Engorgio*, a swelling charm, was used by a young witch to win the biggest tomatoes prize at the Frederick County Fair one year but a team of obliviators detected this illegal act and invoked memory charms on the Muggles present to correct the occurrence. Magic, of course, is allowed at Wizard fairs.

Like Muggles, Wizards use plants as a source of ingredients for medicines and potions. Over 25% of modern Muggle drugs contain plant extracts as active ingredients, and research efforts are ongoing right here at Fort Detrick to isolate new medicines from plants. Wizards use chopped daisy roots in *Shrinking* solutions while Muggles use Ox-Eye daisy leaves in salads. Wizards use ginger roots in *Wit-Sharpening* potions while Muggles use them as a spice in candy. Muggles use American mandrake, or may-apple, roots to make etoposide, a cancer treatment agent, while Wizards use a magical mandrake in antidotes for *Petrification* and to restore people who are cursed to their original state. Since the cry of the mandrake can be fatal to humans, Wizards in Maryland do not grow mandrakes because of the danger to inquisitive neighboring Muggle children.

Both Muggles and Wizards should have their soil tested every 3-5 years to obtain measurements for pH, nutrients and organic matter, information needed to make good decisions regarding soils and fertilizers. It's easy and the basic test only costs around \$10, about one Sickie in Wizard money. You can then fertilize based on your plant's needs.

Fertilizer labels always display three numbers in the same order, representing the percent by weight of three important nutrients: Nitrogen, Phosphorous and Potassium (N-P-K). Nitrogen and phosphorous are the key nutrient pollutants of our waterways that contribute to the depletion of dissolved oxygen in the Chesapeake Bay, adding stress to the Bay's aquatic life forms. Low oxygen especially annoys the Merpeople. Use a fertilizer that contains at least 40% of its nitrogen in slow release form. Look for these terms on the fertilizer bag: water insoluble nitrogen (WIN), sulfur, resin or polymer coated urea, IBDU, and ureaformaldehyde. Slow release fertilizers release essential elements over an extended period of time. An excellent slow release fertilizer is dried Hebridean Black dragon dung, dried by the dragon itself (20-1-1).

Wizards, like Muggles, enjoy Vermicomposting, the process of using worms and microorganisms to convert organic waste into humus. It's a great activity for children. Muggles do vermicomposting indoors in a small bin, around 12" deep, and use red worms to produce worm castings (worm manure) for use as compost on houseplants or in the garden. Use newspaper as bedding and feed them vegetable waste, eggshells, coffee grounds and melons. In about four months harvest the compost and use the worms in a new bin, or go fishing. Wizards follow the same procedures except they use a bigger bin and Flobberworms - although a pest in the cabbage patch, they are excellent for vermicomposting. Keep the bin covered or Gnomes may sneak in and eat the Flobberworms.

Since the University of Maryland extension offices do not yet respond to Owl post, use the Muggle Net at www.Frederick.umd.edu/HorticultMasterGardener to obtain additional information. Click on "Home & Garden Info" and then "publications" to find bulletins that you can download on the topics mentioned above. If you have a gardening question, call a Master Gardener at 301-600-1596. A Wizard may answer. It's secure. Charms, jinxes and curses cannot be placed over Muggle phonewires.

¹*The magic in this column is based on the works of J.K. Rowling.*

Dennis Jung thinks he is a **Magical Master Gardener.*