

THE LOWDOWN ON ROUNDUP

You may have read about the 2019 victory of a California man against the Agribusiness giant Monsanto regarding their product Roundup. The story is alarming indeed, and has spurred many questions from those living here in Rossmoor, why are we still using it?

In order to answer this question, it's crucial to understand the big picture of both the importance of controlling weeds in the first place, and Rossmoor's strategy to not just reduce our use of Roundup, but to reduce ALL chemicals used in the landscape including herbicides, fertilizers and insecticides.

WHY CONTROL WEEDS?

The simplest way to characterize a 'weed' is an opportunistic plant that multiplies rapidly, out-competes desirable species, and is difficult to eradicate. If left to proliferate, they quickly establish large colonies, so it is important to keep control of weeds before it is too late.

WEED MANAGEMENT OPTIONS

There are many methods of controlling weeds, from hand pulling to treating with organic or synthetic solutions, each with their own set of pros and cons. Hand pulling is the least toxic method of removing weeds but it is very expensive as it requires a large amount of labor. More importantly, hand pulling is not always possible. For example, a weed growing in concrete will often break when pulled, leaving portions of the rootstock to regenerate, causing one or more weeds to re-sprout in its place. Synthetic herbicides like Roundup interfere with weed's synapses, causing them to die down through the root. Since these synapses exist

only in plants and not in pets or humans, it had previously been thought that the associated risks of the product were low. 'Organic' herbicides are thought to be safer, but they do not kill weeds' roots so it must be used repeatedly. There are other drawbacks to organic herbicides such as high VOC (meaning that they vaporize and may be inhaled easily), bioaccumulation (levels may build up in soil or groundwater over time), unknown long term effects (not many long term studies have been done), higher short term toxicity, and high relative cost.

CONVERTING TO NATURAL MANAGEMENT SYSTEMS

For the reasons mentioned above, over the last two years Rossmoor has been approaching weed and landscape management adhering to the following philosophy; 'REDUCE ALL CHEMICAL USE BY TAKING A 'WHOLE SYSTEMS' APPROACH TO PREVENTING WEEDS AND INCREASING PLANT VIGOR BY BUILDING LONG TERM SOIL HEALTH'. In other words, we are implementing strategies that build healthy landscapes that can feed themselves, defend themselves from diseases, and out-compete weeds with minimal use of chemicals.

We have implemented this strategy in the following key ways;

- 1) Applying composted mulch on a regular basis. This adds nutrients required for healthy soil and covers bare ground which prevents weed germination in addition to conserving water by preventing evaporation.
- 2) Using a blue dye indicator to track what weeds have been sprayed. The herbicide typically dries in about an hour but the dye remains visible long afterwards and fades over a period of a few days. This prevents double spraying of weeds, helps spray techs avoid over spraying, and alerts people to where an herbicide has recently been used.

- 3) Treat early and often. In order to prevent germination, weeds must be eliminated before they have a chance to set seed. In addition, it takes a small amount of solution to kill a small weed, whereas it takes a large amount of solution to kill a large weed so we must get to the weeds before they have a chance to grow.
- 4) Reducing lawn areas that are not 'high value'. In addition to being water intensive, lawns are extremely chemical intensive. Turf is fertilized 4-6 times per year, treated with an insecticide for grubs twice annually, and treated regularly for weeds. On a weight-unit basis, lawn accounts for 80-90% of all landscape chemical use.

The success of this strategy lies in a slow but sustained approach as we gradually reduce the use of all synthetic chemicals. Until that happens, herbicides continue to be an effective, albeit minimally used tool in reaching our long-term goals by successfully minimizing weeds before they can multiply.

PROTECT YOUR PETS

If you have a pet and want to avoid them coming into contact with herbicide, we follow a '**3 Ts**' schedule so people can be aware of when we plan to spray. This means that Roundup and synthetic herbicides are used only on **Tuesdays and Thursdays until Twelve (noon)**. All other times are designated NON spray hours. During and immediately following these times, keep your eye out for the **blue dye** indicating herbicide has been recently applied where it is visible. Please note that these time restrictions do NOT apply to organic herbicides since they need to be applied more frequently. These restrictions do not apply to fire break and open space areas.

POSTING SIGNAGE

We frequently get requests to post notices when herbicide is being used. This isn't possible because one spray tech may travel over a large distance in a single day, making signage ineffective.

HOW MUCH ROUNDUP IS USED IN ROSSMOOR?

Most people are surprised to learn that less than 80 gallons of RoundUp are used in the mutuals and clubhouses each year. It is diluted (as per directions), so the backpack sprayers you see are more than 90% water.

GOING ORGANIC

If you want to discontinue the use of synthetic herbicides entirely (including RoundUp), within your mutual, going organic is an option. Please note that organic management models do cost more money and are not a guarantee of improved safety, as organic herbicides are not necessarily 'non-toxic'. If you are aware of and comfortable with the tradeoffs, please contact your Mutual Landscape Representative or Mutual Board Director as this change is made on a Mutual Board level. Please do not contact Rossmoor management or the Golden Rain Foundation as they cannot assist in Mutual contract matters.

For more information on this topic along with graphics, please watch the August 31st, 2017 GRF BOD meeting where Mark Heptig and Rebecca Pollon reported on their respective golf course and landscape integrated pest management (IPM) strategies.