Scouting weeds takes methodical approach

Scouting is relatively simple. The scout should divide the site into manageable units for recording the observed data. In the case of a home lawn, the manageable units could be the front, the back and the sides. In the case of a golf course the units could be the individual holes divided into tees, fairways, greens, and roughs. For larger areas such as large facilities, the units could be areas that either have a consistent environment, maintenance priority, use pattern, or some other logical ways of division.

Each unit should be have the same "treatment threshold". That way each unit will require the same level of input, thereby making treatment decisions less complicated.

Walking and riding in zig-zag patterns

Walking or riding over each unit in a zig-zag pattern is the proper appraoch, stopping at key areas that have a history of weed infestation. High-priority sites require a tight zig-zag pattern, while low-priority sites should have a more open pattern. Record observations on a site map. If you are scouting a golf course you may want to use a schematic map such as the one used in the Cornell University golf course IPM scouting program shown at right.

If you will be scouting a large facility, make up a series of maps that represent the areas to be scouted on a grid paper. Make multiple copies of each map and store them in a three-ring binder. Be sure to include the area identification, the date scouted, any other information that you feel that you will need, and a section for comments at the bottom of the page.

For home lawns, a representational map drawn on graph paper while scouting the site is an easy way of handling this type of location. If you will be scouting the area on a consistent basis, then an exact representational map of the area will be very helpful, particularly if you are scouting for multiple pests.

Make sure you have an identification key, such as the one on page 5, on each map sheet, or one key for all maps pasted on the inside of the binder or on the back of a clip board. The consistent use of the key and the recording of the identifying symbols on the maps are essential to the long-term success of IPM scouting. This consistent recording of scouting observations will allow the the collection of data to establish long term trends and patterns of infestation, gauge the success of the control strategies used, and provide the data for predictive pest management models.

Customize the identification keys to reflect your local and regional conditions and pest infestations. Group the weeds by type, dicot versus monocot, by

Schematic Golf Course Map

HOLE	DATE
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Map and courtesy	Identification key

season of their usual appearance, such as summer annuals versus cool-season weeds, and finally by difficulty of control, such as Veronica and Wild Violets versus dandelions and clover. As you become more familiar with the techniques of scouting you will find it easier to cluster easily-

# on map		% of	area in	fested		
map	WEED	1-10	11-20	-	>50	Pattern
BL	General Broadleaves	1.0				
D	Dandelion					
CI	Clover					
PI	Plantain					
1.1	Red Sorrell	1000				
	Tiod Correll					
Ck	Chickweed		meg.	- 157	- 1	
Csp	Corn Speedwell			list li		1100
Kn	Prostrate Knotweed					
Sp	Spurge	1				
Ох	Oxalis					
0.4	Oxano					
	Special Broadleaves					100
Vf	Veronica Filiformis					
Gi	Ground Ivy					Les of
На	Healall					
Wv	Wild violet					
Yw	Yarrow					
Ws	Wild strawberry					
110	Triid ditalibutiy					
Mw	Mugwort					
AG	Summer Annual Grasses					
Cg	Crabgrass					
Ft	Foxtail					
Ву	Barnyard			1		
Wg	Panicums (witch)					
Gg	Goosegrass					
Ns	Nutsedge					
Ab	Annual bluegrass					REL
				124		
Bm	Black Medic					
Bt	Birdsfoot treefoil					
PG	Perennial grasses					
Tf	Tall fescue					
Nw	Nimbleweed					
Vg	Velvetgrass					
Og	Orchardgrass					
Qg	Quackgrass					
Rg	Ryegrass					
ny	Hyegrass					
	OTHER		-			
			115			1

controlled weeds as general broadleaf weeds, rather than individual species.

When should you scout?

Weed scouting is a continuous process. Each time you are on a site, look for new weed problems and make sure the information is entered on the map. The designated scout will know if the observed pest has already been identified or if the infestation is new and requires diagnosis.

The site should receive a formal comprehensive weed scouting once or twice a year. How often a site is formally scouted should be a function of the expectations and the use pattern of the site. If the site is a low maintenance, out-of-view site, then a once-a-year scouting is appropriate. If the site is a high-visibility location, such as the entrance to a corporate headquarters, a golf course, near the boss's window, then at least two scoutings each year are necessary.

The most important time to make a formal scouting in the northern tier of states is in late summer to early fall. During these times the scout can:

- formally gauge the success of control strategies employed in the spring and summer months,
- monitor populations of summer annuals, newly emerging cool season weeds, and left-over biennial and perennial weeds,
- make new or additional control recommendations for the fall.
- have sufficient time to accomplish any changes necessary to modify site conditions or contributing factors,
- allow enough time to reassess existing control strategies over the winter.

A secondary scouting can be made on high-visibility sites in the late spring or early summer period. This second scouting can:

- · gauge the effectiveness of actions taken in the fall,
- identify newly emerging summer monocots such as crabgrass or goosegrass,
- make recommendations for the control of newlyemerged or immature weed populations while they are still vulnerable to control measures,
- make an assessment of the success of management strategies regarding turf health and density.

Scouting times for warm-season grasses

Scouting times for areas with warm-season grasses, areas growing in moderate climates, or sites under special local environmental conditions will need additional scoutings and soutings at different times. For these regions, your local cooperative extension agents can help you decide when to scout. Cooperative extension agents may also have information on local conditions, probable weed species, or unusual circumstances that can make your scouting efforts that much more efficient.