

**Examples of Effective Applications**

1. **Below: Sunburst Push Cart; NOW AVAILABLE** - \$695 plus shipping.

Suitable for spot weed control or where maintenance areas are relatively small (e.g., driveways, paths, gravel areas).

**Left:** late stage prototype in use. **Right:** established grasses 2 days after 1 treatment. (Ave. rainfall +/-40" per yr.)



**Below: Left:** Current commercial model at 2007 trial plots. **Right:** 2007 trial plots in May.

Note untreated strips of dense sod between treatment areas.



**Below: Left and Right:** 2007 trial plots in October (no treatments since May). Newly germinated seedlings after fall rains are easily killed with one treatment.



2. **Below:** Baseball Infield (Veneta, Oregon; 10 miles west of Eugene; ave. rainfall +/- 40" per yr.)



**Left:** dead seedling grasses and damaged perennial weeds 1 week after 1<sup>st</sup> treatment, early April. Note green "control" area (temporarily untreated) in center of field – area received delayed treatment to highlight impact of initial application of Sunburst equipment.



**Above:** Sunburst's original boom mounted unit (4'x5') attached to a 55 HP tractor; beginning 3rd treatment to continue removal of well-established grass clumps.

3. **Below:** Examples of weeds immediately after treatment. Appearance of a fingerprint when leaves are pressed between a thumb and forefinger indicate adequate tissue damage (i.e., treatment is sufficient to cause death of the plant tissues).





4. **Above** – culvert openings freed of dense grass to facilitate the flow of water & to provide improved visibility for implementing ditch maintenance operations that might damage hidden culvert openings (e.g., ditch pulling near the culvert openings). Above results are from 3-4 treatments of dense vegetation (e.g., Reed Canary Grass). With routine application of **Sunburst** equipment, *plant growth can be significantly inhibited while also maintaining a living sod, providing multiple benefits:* reduced use of herbicides in water channels, maintenance of optimum flow capacity, reduced clogging of culvert openings from collected debris; helping prevent overflows and erosion damage, clear visibility for maintenance operations around the culvert openings. (Ave. rainfall +/- 60” per yr.)

5. **Below:** Road Shoulders (Route 99 between Eugene and Cottage Grove, Oregon). (Ave. rainfall +/- 40” per yr.)



- a. **2 Photos at Left** (same site): 10 days after 1<sup>st</sup> treatment in April (left) and immediately after 2<sup>nd</sup> treatment (right); seedling weed growth is an ideal condition for use of **Sunburst** equipment.
- b. **2 Photos at Right** (same site): 10 days after 1<sup>st</sup> treatment in April of moderately dense, well established weeds (left), and after six applications (right; late June) - well established weeds require several treatments to eradicate them; **Sunburst** recommends pulling and blading of shoulders with these conditions, or treatment with herbicides, to remove the existing weed population; timely applications with **Sunburst** equipment the following Spring (as in the photos on the Left) will then control shoulder weed development with a minimum number of treatments (typically, 1-4 times per year depending upon site conditions).

Routine use of **Sunburst** equipment can reduce or even eliminate shoulder pulling and blading operations required for removing unwanted weed growth.

6. **Below: Left:** (2 different sites, Williams, Oregon)) - blackberry on road shoulders being controlled with *Sunburst* equipment (left – 2<sup>nd</sup> treatment being applied, note: steam, dead canes from 1<sup>st</sup> treatment, and wilted canes from 2<sup>nd</sup> treatment; right – 10 days after 1<sup>st</sup> treatment, dead canes lying on road shoulder). (Ave. rainfall <20” per yr.)

**Right:** (same site, Triangle Lake, Oregon): effective *control* of Horsetail (resprouts after 1<sup>st</sup> year of treatment were weak and very slender in diameter; resprouts in 2<sup>nd</sup> year were further reduced in number, size and vigor). Only 4 out of 8 planned *broadcast* treatments were applied to this road shoulder during the first year because control was so effective. Likewise, only 3 *broadcast* treatments were implemented in the 2<sup>nd</sup> year. All subsequent treatments (as required by the project protocol) were limited to scattered spot applications where weak sprouts were observed. (Ave. rainfall +/- 60” per yr.)



7. **Below:** Bridges – Sensitive Areas (between Williams and Grants Pass, Oregon). (Both sites: <20” of annual rainfall.)



a. **Left:** weed growth along railing controlled with 2 applications of *Sunburst* equipment. (Note herbicide use along irrigation channel).

b. **Right:** weeds on road shoulder and in front of concrete curbing controlled using 2 applications of *Sunburst* equipment.

8. **Below:** Vineyard (south of Eugene, near Lorane, Oregon). (Ave. rainfall +/- 40” per yr.)



**Left:** before treatment (Spring season). **Right:** About 10 days following 1<sup>st</sup> treatment. Berms along the vine rows also annually treated with a “spider”-type tilling implement.