

**KIWICARE®**



# Long Term Weed Control in Gravel/Stones

Reasons for Failure?  
How to Succeed.

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# Background

Common weeds of open, well drained waste areas pose a problem for gravel and stone areas such as power sub-stations, railway tracks and others. Many of these weeds have deep tap roots, bulbs, corms, rhizomes or other energy storage organs. At sites where the environment, and therefore the weeds surrounding the sites, includes those found on site there is considerable pressure of invasion from the seeds of weeds that are suited to the conditions on site.

## Possible Reasons for Failure of Control

- Metal (stones) used on sites should be 150 mm deep. In many areas this is not the case due to natural soil build-up, maintenance work, vehicle ruts etc.
- Terbutylazine and other pre-emergent herbicide sprays are largely root active. Herbicide applications may only wet upper surface of metalling so that residual/pre-emergent portion is not getting to soil where seed germination is occurring. Weed shoots emerging through metalling are not affected by contact with terbutylazine on stones.
- Difficulties in getting even application of spray due to site complexity.
- Insufficient product being applied.
- Some weeds may be burnt off by spray application but then recover. This could suggest:
  - antagonism of herbicides.
  - not translocating due to slow growth/metabolism of weeds, or interference of other herbicide.
  - insufficient herbicide applied
  - tolerance
  - resistance

## How to Succeed in Long Term Weed Control in Gravel/Stones

### Kill existing weeds

**Post-emergent** - [Weed Weapon Long Term](#) conc. will provide broader range of control than glyphosate alone. With saflufenil it will also work better in the high light conditions on these sites.

Saflufenacil, while being an effective herbicide in its own right, is also a synergist to glyphosate improving its translocation and root activity.

# Prevent new weed growth for longer

**Pre-emergent** - Get pre-emergent herbicide to the growing substrate (soil) and not just on surface of stones.

1. Granular pre-emergent, [Weed Weapon Preventer](#), would drop between stones to soil surface. These sites are not disturbed and soil below stones is protected. Only areas where vehicles drive in during maintenance would be disturbed.
2. Apply [Weed Weapon Long Term](#) as spray in sufficient volume of liquid to ensure it runs down to wet soil surface. This may mean using more product or with higher dilution rate.
3. Terbutylazine binds well to soil and is not easily moved through soil. Therefore it could be better to apply terbutylazine at a higher dilution rate so that liquid reaches the soil substrate below the metalling/stones. The terbutylazine will bind and so long as sufficient active has been applied the correct level in the soil should be obtained.



## Recommended Treatment

1. Apply [Weed Weapon Preventer](#) at min 2 kg per 100 m<sup>2</sup>. Bulk density for spreaders ~1.4 kg/L)

[The spreader equipment could be as simple as this.](#)

*Note: Best applied before rain.*

2. (If required) Then apply [Weed Weapon Extra Strength](#) at 1.25 L per 100 L to existing weeds to ensure good coverage of weeds. Best applied when weeds are green and actively growing. No need to apply to areas where no weeds have emerged.
3. Apply [Weed Weapon Long Term](#) at 1.25 L per 100 L (half the product compared to the normal dilution rate) and apply to entire site ensuring liquid reaches soil by applying at 2 L per 10 m<sup>2</sup> (double the normal liquid application rate). Resulting in the 'correct' level of terbutylazine per m<sup>2</sup>.

*Note: do not apply in very hot sunny conditions when the stones/gravel are hot.*

4. Spot treatment of particularly stubborn weeds could be carried out with [Weed Weapon Direct Hit](#) or [Invade Gel](#). Invade Gel would be particularly helpful where weeds are hand weeded and tap roots unable to be removed.
5. Create a quarterly treatment schedule. The winter quarter may not require a full treatment.



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