

Liverwort and Moss Control

Environmental Management

Damp conditions support the growth and spread of liverwort, where possible utilise drip irrigation to keep surfaces dry. Maintain good intercrop hygiene to kill resting spores or young plantlets and segregating infested stock will reduce spread. Mulching is an effective way to prevent its growth and can be used in individual pots or square pot think liners.



Chemical Management

Mosskade is a biopesticide composed of natural food ingredients that block the stomata of liverwort. It should be applied early in the day, in conditions where liverwort is actively growing. The surface of the liverwort must dry after application for it to work. It requires 3 applications to control liverwort. Anecdotal evidence from growers is that a lot of product is required for it to be effective.

Sodium bicarbonate received basic substance approval from the EU in recent years. What this means for you is that you can buy it off the supermarket shelf and any one can apply it to your crop - no training needed.

Advice if using Sodium Bicarbonate

1. Carry out phytotoxicity tests
2. Think Health & Safety - gloves & dust mask
3. Use on dry plants and leave for as long as possible before washing off
4. Repeated use may cause sodium toxicity in sensitive species
5. Coarser grade e.g. clinical grade 5 is easier to apply compared to finer baking powder
6. Use in cooler months Nov- Feb
7. A light dusting is a good starting point

Chemical Management

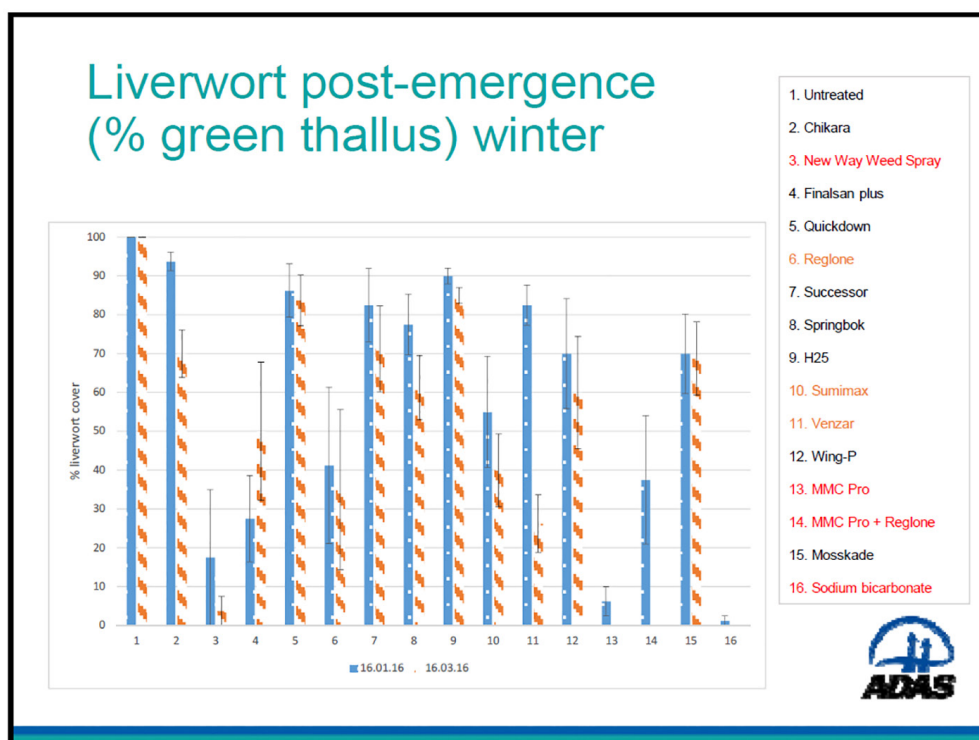
Baking powder is not pure Sodium bicarbonate - it contains about 50% cream of tartar. The rate of application is heavy at 122kg/ha. Application by an icing sugar duster works well for spot treatments however a Ronstar applicator may work also.

UK Experience – A 2018 AHDB perennial growers event in the UK held a discussion on the effective control of liverwort by using Sodium bicarbonate. More than 5 large commercial nurseries had tested baking powder to control liverwort on plugs and in propagation. All had reported success with no phytotoxic impact on any plants. Sensitive plants such as Carex and Cordyline that would have been susceptible to damage from Ronstar granules funneling in to the centre didn't suffer any damage from the product. Growers applied it to dry crops where possible and then washed it off. It didn't work where it was dissolved in water and then applied.

USA trials - Oregon State University trials carried out on the effectiveness of Mogeton, Terracyte (sodium carbonate peroxyhydrate very similar to sodium bicarb once broken down) and a herbicide not approved in Ireland. The results showed that Mogeton provided the best control of established liverwort but Sodium bicarb did work.

Some growers using **Potassium bicarbonate** - Kaligreen to control botrytis have also noted control of liverwort. Further investigation is recommended before testing it.

Dimethenamid-P (Wing P) is a potential herbicide that can suppress liverwort growth, but it works very slowly and the results may vary.



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