Frequently Asked Questions - Contans WG: Break the Cycle

1. What is Contans?
   A: Contans is a soil applied biological fungicide that breaks the cycle of sclerotinia disease, destroying sclerotinia rot before it even appears. Working in the soil or on infected crop residue, Contans reduces this disease causing fungus before it can affect the crop by harnessing the natural biological benefits of the soil.

2. What is the active ingredient in Contans?
   A: The active ingredient in Contans is a natural soil fungus called Coniothyrium minitans (C. minitans), a specific natural enemy of the resting survival structures (sclerotia) of the plant pathogen sclerotinia.

3. How long does it take for Contans to work?
   A: The mycelium of C. minitans attacks the resting survival structures (sclerotia) of the pathogens sclerotinia spp. in the soil and destroys them typically in 90 days (between soil temps of 5°C & 30°C. The spores of C. minitans have to get in contact with the sclerotia or the mycelium of Sclerotinia so incorporation after application is essential.

4. How do storage, shipping and transport work for this product?
   A: Contans is a biological product so it must be kept frozen to increase the shelf life of the product for prolonged periods of time. UAP keeps the product frozen in our warehouses in Calgary, Regina and Portage. Orders taken should plan on a 2 day delivery to the retail location but may come sooner depending on order size. Store Contans in a cool and dark place until it is to be applied which should be as soon as is possible upon delivery. If application can’t occur in a timely fashion, packaged Contans can be re-frozen to prolong viability. It will be important for retailers and producers to be in contact with each other to understand when the product will be applied on farm as Contans is shipped as a just in time product for the most part.

5. What time of year can Contans be applied?
   A: Spring (pre-seed) and Fall (postharvest)

6. What are the different strategies for Contans applications?
   A: SPRING APPLICATION*(preseed)
   Two Options: 1. Seeding a sclerotinia susceptible crop in spring (spring rate=0.8 kg/ha)
                2. Seeding a non-susceptible crop in spring (spring rate=0.4 kg/ac)

   FALL APPLICATION* (post-harvest)
   Two Options: 1. Seeding a sclerotinia susceptible crop in spring (fall rate=0.6-0.8 kg/ac)
                2. Seeding a non-susceptible crop in spring (fall rate=0.4 kg/ac)

   Each option should be followed yearly by a maintenance application of 0.2 kg/ac
   *Assumption that field has had sclerotinia/white mould infection
7. What are the various ways to apply Contans WG to the field?

A: Contans is applied by spraying the soil surface (or crop residues) using conventional spray equipment. Maintain agitation while spraying. For tractor mounted sprayers, use of spray boom equipped with fan nozzles provides enhanced coverage. Please note that Contans MUST be incorporated after application.

8. What is the best way to incorporate it into the soil?

A: Once applied to the soil surface (or crops residues) it can be incorporated by heavy harrow no deeper than 2 inches below the soil surface. The reason for this is that sclerotia bodies do not germinate below this point in the soil. Once Contans is incorporated into the soil it becomes a lot more stable and will not be broken down by ultra violet light. Incorporation will also help Contans get into contact with sclerotia bodies. Product can also be incorporated with 0.5-1 inches of rain (within 2 weeks of application) to work the product through the upper soil layer or by using an irrigation system.

9. Can Contans be applied with the post burn down?

A: Yes. Contans can be applied with post burn down in a tank mix with herbicides however there are many exceptions to what Contans can and cannot be mixed with. It is also recommended that Contans be applied as soon as possible after mixing with other herbicides so fungi are not damaged. Please consult the updated list of compatible products that can be mixed with Contans and the maximum amount of time they can be in a spray tank before the solution must be applied. Please contact UAP Canada for the updated compatibility list.

10. What field practices are best fits when using Contans?

A: Contans is best applied in minimum/low/no-till programs

11. Can it go on with the pre-harvest glyphosate?

A: Yes. Contans can go on with pre-harvest glyphosate however there are only certain glyphosates that Contans can be mixed with and in most cases it is required that the tank mix be applied within 4 hours of mixing. Please be aware of how sensitive the fungi are and that each glyphosates formulation is different. One cannot assume that just because ‘glyphosate A’ works that ‘ Glyphosate B’ will be fine. Consult the most up to date compatibility chart before mixing any products with Contans.

12. Can it go on with anhydrous?

A: Contans CANNOT be mixed with anhydrous as it will kill the fungi. If the grower wants to put the anhydrous on first followed by the Contans or vice versa that should be ok. Preference would be to do the Contans application last.

13. How does burning the stubble affect it?

A: If a grower wants to burn his stubble it would make sense to apply Contans after he has done so, not before.

14. What type of water volume should growers be using?

A: Contans should be applied using a minimum water volume of at least 10 gallons/acre.

15. At what temperatures is Contans active?

A: Contans remains active between soil temperatures of 5°C and 30°C. Once the temperature goes above or below these points the active ingredient in Contans which is c. mimitans stops its activity and rests in the soil but the fungus will survive winter. Once the temperature returns to a temperature between 5°C and 30°C, c. mimitans is active again.
16. In what conditions is Contans most effective?

A: The effectiveness of Contans depends on soil-temperature (optimum: 15 – 25 °C) and on sufficient moisture in the soil. Proper application and incorporation is absolutely essential.

17. Does Contans get broken down by the sun?

A: C. minitans does get broken down by the sun’s rays and UV light at various rates depending on temperature. After applying Contans it should be incorporated as soon as possible. Once incorporated into the soil the product becomes more stable.

18. Who should be using Contans WG?

A: Growers that have a history of white mold/sclerotinia in their fields. Also, growers that are pushing tighter rotations of sclerotinia susceptible crops such as canola and pulses. Contans will lower the inoculum build-up of sclerotinia disease by lowering the sclerotia (resting structure of sclerotinia) populations thus reducing disease pressure over time.

19. How long can Contans stay in the spray tank for before application?

A: Once Contans has been mixed it should be sprayed shortly after. Do not let it sit overnight in the spray tank or for prolonged periods of time. When mixing Contans with other herbicides it should be sprayed within a 4 hour period. Leaving Contans in the same tank as some herbicides for longer than 4 hours can result the fungi being harmed and a reduction in efficacy.

20. What is the mixing order for Contans WG?

A: The order of mixing Contans with other products would be: water, Contans (WDG), water, herbicide (any liquid formulation). We want the Contans to mix well and also have the least amount of contact with any other product that could possibly damage the active ingredient before application.

21. Does sclerotinia disease infection in a given field come primarily from the field itself or from neighboring/surrounding fields?

A: The main ascospore infection of a crop is caused by infestation of the field where the crop is standing.

22. Is Contans a stand-alone product to battle sclerotinia?

A: Contans is the only product that goes after the root cause of sclerotinia disease which are the sclerotia bodies (over wintering portion of disease) found in the contaminated harvest residues. Over time Contans does a great job of lowering the inoculum levels of those fields which will significantly reduce the disease. However, Contans is only one tool of many that producers should be using in an overall integrated pest management strategy which includes proper rotations and the use of foliar fungicides.

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Always read and follow label directions

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