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FOR IMMEDIATE RELEASE

Trifluralin use at sowing

Trifluralin, a Group D herbicide, has increased in popularity due to its ability to control ryegrass in response to annual ryegrass populations developing resistance to the chemistry of Group A and Group B (Hoegrass and Glean) herbicides. It is applied as a pre-emergent and must be incorporated into the soil to be effective. Trifluralin selectivity is based upon the differing positions of weed and crop growing points. The ryegrass seedling intercepts the trifluralin as it grows through the treated soil and affected roots display clubbed and stunted symptoms.

Under conventional cultivation systems, the aggressive nature of seedbed preparation buries weed seeds throughout the soil profile. Therefore in order to achieve effective grass weed control with trifluralin, it too has to be aggressively incorporated throughout the soil profile otherwise it will volatilise and/or undergo photo-degradation (more rapid under warm, wet conditions). The challenge in this system is not to incorporate the trifluralin down into the crop seeding zone as damage may result. Ideally, trifluralin should be incorporated evenly in the top 2.5cm of soil and the crop must be sown under the trifluralin layer otherwise it will either fail to emerge or if it emerges it may have stunted root systems, poor subsequent growth or lodge later in the season.

However, many farmers have successfully incorporated trifluralin at sowing, by maintaining good depth control and adequate seeding rates. An alternative to incorporation by sowing (IBS), trifluralin can be applied immediately after sowing, and incorporated by prickle harrows however losses by volatilisation will be increased and finding the time to do so in a busy seeding program may prove difficult.

Under a no-till system, with the aggressive cultivations removed, weed seed returns are left at or near the soil surface as opposed to being buried. As a result, the need for thorough and deep incorporation is removed and ryegrass seed can be effectively controlled by applying trifluralin in a concentrated band near the surface and IBS. However, it is important to note that trifluralin has poor water solubility so it will not wash off stubble onto the soil surface with a subsequent rain and it binds more tightly to organic matter than clay which is a definite consideration in a high residue system.

The action of one pass seeding with a knife point and press wheel, throws treated soil into the inter-row achieving two outcomes: removing treated soil from above the seed row and covering the trifluralin in the inter-row to prevent volatilisation and photo degradation. The success of removing the treated soil from above the seed row and covering the trifluralin in the inter-row is dependent upon soil throw. If excessive soil throw occurs, i.e. treated soil is thrown into the adjacent furrow, crop establishment and weed control may be compromised. Travel speed, soil type, row spacing, crop residue, point type, etc will all influence soil throw and these factors need to be monitored.

Factors which will improve trifluralin efficacy when applying in situations where crop residues are present include: leave stubble standing, use higher water rates, use a coarse droplet and higher pressure, adjust to height of false target, apply in the same direction as the stubble was sown, and use higher rates in high residue situation to compensate for tie up.

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By removing the treated soil from above the seed row, crop safety is greatly improved and application rates can be increased (Triflur X is registered for use in wheat, barley and Triticale at 1.5 – 3L/ha for use in no-till/min-till cropping systems). The incorporation interval has increased to 24 hours which is an additional benefit as many farmers found it challenging in a busy seeding operation to spray and then return within 4 hours logistically difficult.

Remember, that trifluralin use has increased as a response of increased resistance to other grass selective herbicides so consequently the risk of developing trifluralin resistant ryegrass has increased. This is a timely reminder that strategies must be implemented now to preserve this important herbicide. A trifluralin use in no-till farming fact-sheet is available from the BCG website.

For more information call BCG on 03 54922787 or check the website www.bcg.org.au