IS THE ROLLER A RELIABLE CHOICE FOR COVER CROP MANAGEMENT?

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KNIFE ROLLERS, CRIMPERS OR JUST ROLLERS ARE USED BY ORGANIC AND NO-TILL FARMERS TO MANAGE LARGE AMOUNTS OF COVER CROPS AND CROP RESIDUES. THEY FLATTEN AND CRIMP THE PLANTS FOR KILLING THEM AND LEAVE AN UNINCORPORATED MULCH WHICH CONTRIBUTES TO REDUCE EROSION, RUNOFF, WEEDS AND CONSERVES SOIL MOISTURE.

HOLLOW DRUM MADE OF STEEL OR WOOD WITH PARALLEL BLUNT KNIVES OR BARS ALONG THE LENGTH OF THE DRUM WHICH TURNS AROUND THE END OF THE BARS WHEN PULLED. THERE ARE MANY DESIGNS WITH DIFFERENT DRUM WIDTHS, NUMBER OF DRUMS AND BARS, BARS DESIGN AND ALSO FOR TRACTOR OR ANIMAL TRACTION.

FOR ANIMAL TRACTION

IS THE ROLLER EFFECTIVE FOR COVER CROP CONTROL COMPARED TO HERBICIDE?

IS THE ROLLER EFFECTIVE FOR WEED CONTROL AND PERSISTENCE OF SOIL COVER?

CONCLUSION: YES, IT IS A CHOICE AS EFFICIENT AS HERBICIDE CONSIDERING COVER CROP AND WEED CONTROL, WHEN MANAGEMENT OF RYE AND OAT IS DONE AT THE CORRECT GROWTH STAGE. ROLLER IS MORE EFFECTIVE WITH RESPECT TO PERSISTENCE OF SOIL COVER (HIGHER) AND DECOMPOSITION RATE FOR OAT (LOWER).

REFERENCES:


OSCAR: Optimising Subsidiary Crop Applications in Rotations

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