

## BRANCHES TREE CARE LTD.

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## **NEEDLE BLIGHT** (RHIZOSPHAERA) ALSO DIPLODIA AND DOTHISTROMA BLIGHT

NEEDLE BLIGHT IS A FUNGUS, (MAKES A SPORE), THAT LIVES ON THE NEEDLES OF COLORADO SPRUCE AND WHITE SPRUCE. THE FUNGUS COMES OUT OF DORMANCY WITH SPRING AND THE TREE. As soon as it is active the fungus starts to release spores. From the research I have DONE ON IT I BELIEVE THE NEEDLES ON THE GROUND UNDER THE TREE ARE NO LONGER A THREAT AND CARRYING THE FUNGUS BECAUSE THEY ARE DEAD AND THE FUNGUS CAN ONLY SURVIVE ON GREEN NEEDLES. THE AIRBORNE SPORES CONTINUE THE FUNGUS LIFE CYCLE BY BEING IN A CONSTANT STATE OF PRODUCING SPORES, RELEASING THEM AND LANDING ON HEALTHY NEEDLES. IT KILLS THE NEEDLE BY PLUGGING UP THE STOMATA WITH IT'S FRUITING BODIES. STOMATA ARE HOW THE NEEDLE EXCHANGES GAS, SO ESSENTIALLY THE NEEDLE SUFFOCATES. IT SETTLES ON ONE TREE THEN YEAR AFTER YEAR SPREADS THROUGH THE WHOLE TREE, THE TREE LINE OR NEIGHBORHOOD. IT'S VERY EASY TO SEE, ESPECIALLY IN SPRUCE WIND BREAKS IN THE COUNTRY. IT'S BECOME VERY COMMON, I HAVE SEEN IT IN SPRUCE ALL OVER CENTRAL ALBERTA, REPORTS SAY IT IS ALSO IN SASKATCHEWAN AND MANITOBA AS WELL. THE NEEDLES TAKE A SEASON TO DIE BACK, SO THE DIE BACK YOU SEE NOW IS ACTUALLY LAST SEASONS LIFE CYCLE. USUALLY THE NEEDLE FIRST DIES FROM THE CENTER OUTWARD TOWARD THE TIP HOWEVER SOMETIMES IT TAKES THE WHOLE NEEDLE WHICH CAN CAUSE A BIT OF CONFUSION. MOST OF THE TIME YOU CAN SEE A BLACK OR DARK BROWN LINE IN THE MIDDLE OF THE NEEDLE. IT DIES FROM THIS SPOT TOWARD THE END OF THE NEEDLE FIRST. IT GOES DORMANT WITH THE TREE IN THE FALL ON GREEN NEEDLES. IT TYPICALLY TURNS THE NEEDLE A REDISH RUSTY BROWN COLOR, HOWEVER I HAVE TESTED SAMPLES WHERE THE NEEDLE HAS A PINKY PURPLY HUE AND IT HAS COME BACK AS DIPLODIA. A LOT OF PEOPLE THINK IT'S NEEDLE CAST, NEEDLE CAST IS A VERY VERY DARK BURGUNDY BROWN COLOR AND IS ON THE INSIDE OF THE TREE, BLIGHT IS ON THE TWIGS AND NEW SHOOTS.

REMEDY: BLIGHTS CAN BE EFFECTIVELY TREATED WITH FUNGICIDE PRODUCTS THAT THE CANADIAN GOVERNMENT HAVE BANNED. THE CANADIAN GOVERNMENT HAS ALSO LIMITED PRODUCTS THAT ARE AVAILABLE HERE IN THE MANNER OF STATE OF MATTER, LIQUID VS POWDER. THE AMOUNT REQUIRED TO TREAT NEEDLES IS SIGNIFICANT AND THE MSDS ON COPPER SULPHATE TREATMENTS IS VERY CLEAR ON EXPLAINING THE HAZARDS. IT'S ONE THING TO SPRAY A VEGETABLE GARDEN FOR POWDERY MILDEW, WHICH CAN BE POWDER FORM, AND ANOTHER TO SPRAY IT SKY WARD TO COVER A SPRUCE TREE. CHLOROTHALONIL IS THE ACTIVE INGREDIENT NEEDED IN PRODUCTS THAT TREATS NEEDLE BLIGHTS. IT IS COMMONLY USED IN FARMS ON POTATO BLIGHT. HOWEVER, THE LAWS FOR SPRAYING THIS FUNGICIDE ARE THAT IT CAN NOT BE SPRAYED WITHIN 150 METERS OF A RESIDENCE. ALSO, IN ORDER FOR SPRAYING A FUNGUS TO BE SUCCESSFUL MEANS THE PLANT NEEDS TO BE TREATED CONSTANTLY THROUGH SPRING SUMMER AND FALL EVERY 4-6 WEEKS ISH. WITH THE COST OF THAT, IT'S COMMONLY DISCUSSED AT OUR ARBORIST MEETINGS THAT 2X SEASON IS SUFFICIENT. FIRST SPRAY IN JUNE THEN 6 WEEKS LATER. THIS WILL BE SUFFICIENT IN CONTROLLING THE FUNGUS WITHOUT BEING A REALLY BIG EXPENSE.

THE STORES THAT SUPPLY FARMS WITH THEIR CHEMICALS IS WHERE YOU NEED TO GO TO FIND WHAT IS AVAILABLE.

I HOPE THIS INFORMATION HAS HELPED YOU. PLEASE REACH OUT TO DI IF YOU HAVE ANY QUESTIONS OR WOULD LIKE HER TO COME OUT AND SEE YOUR TREE.