

Winter Damage on Evergreens (22/23)

This past Winter (22/23) has not been kind to Conifers right across the prairies. We are part of a national organization for Nursery growers and most Tree Nurseries have experienced significant damage to their crops, young and old. Many of these Nurseries have been operating for 30+ years and all of them say that this is the worst they have ever seen. This is not localized to Edmonton, it is right from Manitoba and into some parts of B.C. Even mature trees (20yrs+) are showing damage/death around Edmonton already.

The second half of 2022 was unusually dry. This led to low levels of ground moisture in the fall which evergreens depend on as they head into winter. Evergreens continue to transpire (moisture loss through needles, like how humans sweat) albeit much less, throughout winter. The lack of moisture going into winter resulted in increased desiccation (needles drying out). In addition to dry conditions; we also had 2-3 weeks of extreme cold in December (temperatures dipping as low as -42 degrees) which is almost a zone 2 winter temperature. This was followed by fluctuating temperatures in January/February which has a negative effect on winter hardiness. When temperatures increase, trees (evergreens in particular) begin to "wake up" which takes energy. When the temperature plummets again the tree tries to harden off again which takes more energy. The temperature swings result in increased stress for the tree and reduced hardiness (by up to 25% each time the temps come up in mid-winter).

Needles that are turning brown or purple right now will likely drop over the next month or two as we enter spring. The good news is; that so long as the damage is only affecting the tips that the branches, the tree is still fully alive and the buds are almost always still good. The buds will emerge and form new needles (usually in June), but there will be some significant bare patches depending on the severity of the Winter burn for a couple seasons while it recovers. Younger trees tend to recover a little quicker than the older trees. Do not trim off the ends of damaged branches as the new buds will form at the tips (outside of the damaged needles).

There is very little that can be done in these situations to prevent this type of damage/burning. If they are smaller evergreens they can be sprayed in the Fall with an anti-desiccant and again mid-Winter. Some people will wrap their smaller evergreens (10' and under) with Burlap for the Winter to help as well.

There are certain weather events that are out of the control of what we can do to protect our tree investments. There is disappointment from home owners, landscapers, and Nurseries alike who are left with thousands of dollars of damaged stock that should ultimately recover, but look poor for a couple growing seasons.