

NATURALIZATION OF SITES

St. Thomas and surrounding lands



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NATURALIZATION OF SITES: ST. THOMAS AND SURROUNDING LANDS

In order to naturalize a site that comprises of Natural Carolinian Forest species, it takes time. While other non-native grasses and wildflower species may establish faster (possibly within one or two growing seasons after planting,) these species will not have the longevity compared to true native Ontario species.

These plants are not intended to be grown in this climate zone, and as such, a spectator will notice plants that are not as hardy and roots will not be as fortified. Their willingness to grow will be limited, and they will eventually be taken over by stronger and hardier native species. Our preferred naturalization method is a meadowlike Tallgrass Prairie (TGP). With native tallgrass prairies, you see a mix of medium to tall grasses, wildflowers, and shrubs with border trees. TGP provides significant wildlife habitat 12 months of the year. Depending on the location, insects, birds, reptiles, and amphibians, as well as both small and large mammals, can use these spaces for cover, breeding, feeding, and safety from predators. TGP plots can be used as naturalized linkages for fauna, as well as providing adequate screening of surrounding residences upon establishment.

ACCORDING TO ALUS'S (ALTERNATIVE LAND USE SERVICES) TALLGRASS PRAIRIE GUIDE 2015, SOME OF THE BENEFITS OF PLANTING A TALLGRASS PRAIRIE INCLUDE:

- Support a variety of species by providing habitat for wildlife such as pollinating insects, birds, small mammals, and game animals like wild turkey and white-tailed deer
- Reduces wind and water erosion and runoff
- Thrives on nutrient poor soil
- Aesthetically pleasing with a diversity of colour and plant life
- Low maintenance once established
- Plants are drought tolerant
- Clumped warm season grasses make ideal habitat for 2/3 of our native bees which are solitary and nest on bare ground
- Flowering plants attract pollinators and provide nectar from spring to fall
- Healthy prairies make great neighbours to agricultural fields because they are typically not invasive
- Planting Tallgrass prairie supports an otherwise declining ecosystem in Canada

For more information about planting, monitoring and maintaining plots, please visit ALUS.ca. They are a great resource.

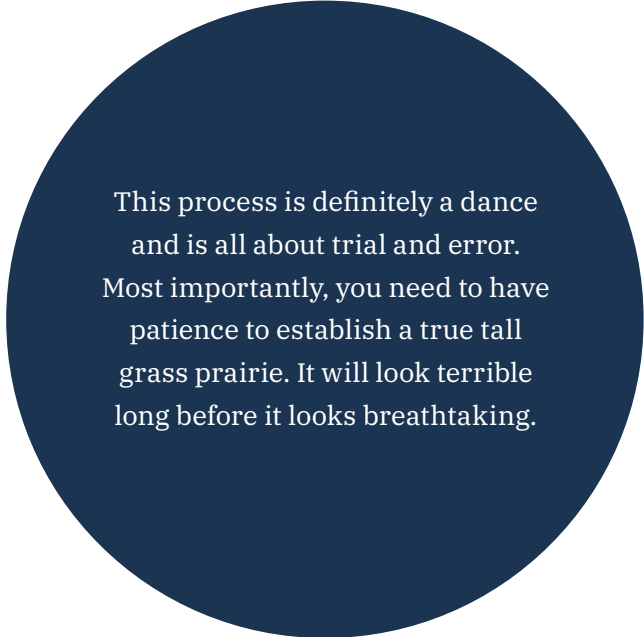
DTL'S PROCESS OF NATURALIZATION:

While slower germination and root establishment of native TGP species is happening, cold season common weeds most often take over the surface if no nurse crop has been used to cover fresh soil. This is completely normal and expected for a few growing seasons until significant germination of the TGP species can be seen. Because of the low sow rate of tall grass prairie, it also takes a few years for the 'Patchy' look of these species to be lost. The holes will start to fill in as the prairie species establish and self-seed into exposed soil. Ultimately, as this is happening you will notice less and less occurrences of common 'weeds'.

Don't be discouraged, there is action happening under the surface that you can not see.

One or two mowings per season should be completed to discourage self-seeding of cold season weeds, thereby maintaining or hindering next season's population. This process is tricky though, as you want to hit the window before most weeds start seeding, but also allowing your wildflowers and grasses to

flower and seed to increase population counts for next year's growing season. Another factor in determining timelines for maintenance is minimizing disruption to any fauna who you may be displacing by cutting. Completing this work earlier or later in the season is best to avoid possible young.



This process is definitely a dance and is all about trial and error. Most importantly, you need to have patience to establish a true tall grass prairie. It will look terrible long before it looks breathtaking.

CRITICAL TIMES IN PLANTING LIFESPANS:



INFANCY STAGE OF SEEDING:

At the 2-year point after initial seeding, if germination has resulted in minimal TGP plants in comparison to cold season weeds (10-20% of total area), this would be a good opportunity to mow, lightly till and re-seed with more seed. This is not to say that there are not more native plants coming or that the seed put down was bad, just that there have been external forces, i.e.: time of year sown, amount of water received, sunlight received, seed loss that has impacted the amount of germination. By re-seeding, you are doubling up your chances of success in the coming season for more plants. By doing a light till to expose soil for re-seeding, roots of previously established plants still remain and most often times come back from the root next season.

The picture shown above, is a site that was just re-planted after a low germination rate of drilled seed. You will notice

a very low frequency of grasses and flowers in its first growing season, post re-seeding. It has already surpassed last year's growth. We are hopeful that this plot takes off now. You will notice the second height plumes of the grasses starting to shoot up overtop of the predominant weeds. More self-seeding of this grass will happen to adjacent property, especially with the bank establishment on the adjacent pond banks.

CHILD STAGE:

From our experience, 5 years of flower and grass establishment is when it starts to look like something intentional. By this time, you should see:

1. More areas of TGP species than cold season plants. (60% or greater)
2. Large pockets of tall grasses and a 'second height' above greenery of seed heads (med/tall) depending on your blend.

Once you have achieved these specs, maintenance of these areas should consist of spot removal only with a weed eater, targeting only areas of stubborn weeds (white clover and small invasive thistles).



Once the established plants are well on their way and no re-seeding is warranted in the future on the site, it is at this time you could make any additions you want to the landscape. Trees, shrubs, and other native plantings could be added to dress up the site based on conceptual plans. This site is now 6 years post-seeding. It was seeded twice because of a few factors, such as low germination, erosion control and block completion. As you can see here, the tall grass is establishing well. There are many wildflowers taking hold, and there are very few occurrences of common weeds that have been choked out by our preferred plants. Spot weed-eating has been completed throughout the season to assist in removal of thistles and white clover. This pond also has recently been planted with many types of native shrubs like Staghorn sumac, elderberry, viburnum, serviceberry, redbud and numerous Carolinian tree species.





TEENAGE TO ADULT STAGE:

By 10 years, your TGP site should be well into its teens. This site would be completely rid of all cold season weeds (internal to the site.) The perimeters may experience growth, but not within the confines of the border. Native grass root systems hold together soil, increasing soil organic matter and improving water infiltration. A site this old is now considered established and operating as a naturalized habitat with no maintenance. Above are some photos of an established Tallgrass Prairie that we are very proud of and will be loved by many homeowners in a later phase of one of our subdivisions.

The landscape above is primarily comprised of Switchgrass where in comparison to the earlier photos, you'll notice the composition

primarily showcases the beautiful bronze plumes of Indiangrass. Both are native Carolinian species, but when planted and established, create two totally different vistas. As you can see in the photos above and to the side, this native grass has completely overruled any common weeds within the planted limits. However, the field immediately outside of the planting has been, until recently, farmed. The repeated soil disturbance results in weeds noticeable in the photo (above) as no hardy grass species has had the chance to take over this area.



The moral of this story is patience. True naturalization using native species takes TLC, patience, and persistence, but over time, turn into showstopping environmental spaces. With the uptake of agricultural parcels to meet the needs of the housing crisis, Doug Tarry Limited is committed to re-establishing as much environmental land as possible for the betterment of all communities, both human, and floral and faunal. These spaces turn into an everlasting legacy of commitment and passion speaking to our environmental stewardship.

Naturally yours,

The Doug Tarry Homes Land Department

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