

Synthetic Weed Control Fabric Advantages and Disadvantages

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Thousands of miles of polypropylene woven fabric have been applied to conservation tree plantings for weed control throughout the Great Plains, resulting in improved survival and growth. Fabric both eases and complicates subsequent management of conservation plantings, even when properly applied.



"Ideal" fabric installation

Fabric Advantages

- Applied only once.
- Greatly increased tree and shrub establishment and survival. (Increases survival from 20% to 80%+).
- Increased growth rates immediately following planting.
- Easier and more timely weed control.
- Long-lasting weed control.
- Comparable cost to other weed control methods averaged over 5 to 10 years.

Fabric Disadvantages

- Initially expensive.
- Requires specialized machinery and trained crew to install properly.
- Proper installation is critical to prevent pulling loose in high winds.
- Does not break down, especially within the shade of trees and shrubs.
- Stems may be girdled by fabric as trees and shrubs grow.
- Suckering of some shrub species is greatly restricted within first 10 years.
- Dense sod can become established on top of fabric, negating benefits and complicating future maintenance.



Sod growing on top fabric

Fabric Management

- Inspect annually or more often if needed.
- Ensure edges are firmly anchored.
- Ensure openings are not parallel to the grain of the fabric to avoid stem damage (X, C, J, or L shaped).
- Keep soil and organic matter off fabric.
- Control aggressive weeds that may establish in fabric openings.
- Enlarge openings as needed to prevent stem girdling.
- Consider alternative weed control where dense shrub thickets are desired.



Reduced suckering outside fabric. Chokecherry roots on top of soil immediately under, and parallel to fabric edge. Fabric has been removed.



Stem girdling after 8 years

Conclusion

Fabric has greatly increased tree planting success and vigor in conservation plantings. However, it requires regular maintenance to prevent future damage to the planting. Since fabric can inhibit suckering of some shrub species, another weed control method may be more appropriate for certain types of plantings and/or landowners. Researchers continue to develop weed control materials that will provide effective initial control with minimal long-term negative aspects. New fabric types with varying amounts of photo degradation have been released to address potential girdling problems. Conclusions as to the success of these new fabric types are not expected for several years.

All programs and services are offered on a nondiscriminatory basis.