



GLYPHOSATE SHORTAGES

SUPPLY CHAIN DISRUPTION HITS FOOD PLOTS

You should tweak your entire weed management system to make up for the glyphosate void.

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“I ENCOURAGE EVERYBODY TO SHOP FOR GLYPHOSATE NOW. PROCRASTINATION MIGHT EQUATE TO WEED CONTROL PROBLEMS.”

This is now personal. First, it was toilet paper and hand sanitizer. Later, components in automobile electronics became scarce. Supply chain disruption has now hit agriculture and, by extension, food plots. Glyphosate is in short supply, and prices have escalated. I have given up trying to comprehend the causes of supply chain disruption, and I won't even touch that aspect of the glyphosate shortage. I'm going straight to weed management alternatives without glyphosate.

Glyphosate has many use patterns in food plot management. Two of the most common and important are site preparation and pre-plant application to control emerged weeds on seedbeds before seeding forages. Glyphosate can also be applied with a specialized applicator called a weed wiper. Although that's a small niche use of glyphosate, it's a very useful tool to control tall weeds without damaging forages. Because glyphosate has many possible uses in food plot management, an entire weed management program needs to be considered when planning alternatives. A word of warning: There is not a one-for-one replacement herbicide that can be cleanly substituted for glyphosate. The entire weed management system needs to be tweaked to fill the glyphosate void.

REVISED MECHANICAL WEED CONTROL STRATEGIES

Pre-plant tillage using a disk harrow or power tiller can replace glyphosate for weed control on the seedbed before seeding forages. This is called stale seedbed weed control. Its objective is to create a weed-free seedbed before seeding forages, which gives crop seedlings a competitive jump on weeds. Multiple tillage operations might be needed to produce a weed-free seedbed. Repeated stale seedbed tillage is effective, but it adds to the overall cost of weed control compared to one application of glyphosate.

Mowing or clipping tall weeds is a partial replacement for glyphosate applied

with a weed wiper. Repeated mowing suppresses erect annual and perennial weeds. Ideally, mowing should be done when weeds reach 12 to 18 inches high, which is normally well above the low-growing forages. During a three- to five-year period, repeated mowing during summer can deplete root reserves of perennial weeds. This practice will help suppress their growth and reproduction. Mowing is not as effective as glyphosate in managing perennial weeds. However, in the absence of glyphosate, mowing will keep populations of perennial weeds from increasing.

OTHER HERBICIDES

Glyphosate is broad spectrum and systemic. It controls grasses and broadleaf weeds, annuals and perennials. However, there might be situations during site preparation when grasses are not present and broadleaf weeds need to be controlled. For site-preparation broadleaf weed control, 2,4-D and/or triclopyr are substitutes for glyphosate. Grasses will not be controlled by 2,4-D or triclopyr, but those alternative herbicides are effective at controlling broadleaf weeds. Additionally, triclopyr is useful in controlling woody broadleaf weeds and brambles. These herbicides will kill food plot forages if directly applied. However, 2,4-D and triclopyr have minimal soil herbicidal properties and are ideal for site preparation.

Glufosinate is a nonselective herbicide that has similar use patterns as glyphosate. Despite name similarity, glyphosate and glufosinate are chemically very different. In general, glufosinate is not as effective on perennial weeds as glyphosate. Informal discussions suggest that glufosinate might also be in short supply. Glufosinate has not been marketed or packaged for small or intermediate uses, but that might change. Glufosinate has been more costly than glyphosate, and that trend will likely continue.

Pelargonic acid is a fatty acid, somewhat like a soap. It's a quick-acting non-

selective contact herbicide that controls annual broadleaf weeds. Pelargonic acid does not move in the vascular system of treated plants and will not control perennial weeds. In the recent past, many glyphosate-containing herbicide products sold in chain stores were blended with pelargonic acid to quicken weed control response. I have many years of research experience with pelargonic acid. Although the herbicide can effectively control annual weeds on seedbeds, it's tricky to use and achieve acceptable performance. Pelargonic acid is a specialized herbicide that has not been widely used in conventional agriculture, making it a costly alternative to glyphosate.

Some herbicides derived from plant-based products might be promoted as alternatives to glyphosate. These are niche herbicides used in organic crop production. All are nonselective and quick acting but not systemic. Natural product herbicides will not control perennial weeds, and I never controlled grasses with these products. Product names are numerous, almost impossible to track and change rapidly as rebranded products are introduced. Active ingredients are from plant-based sources, such as concentrated vinegar (greater than 20 percent acetic acid), citrus oil (d-limonene), lemongrass oil, clove oil, cinnamon oil and others. Based on many years of research experience with these herbicides, I've found the performance of natural product herbicides to be unpredictable, and I'm being kind with that assessment. Further, these herbicides are very expensive. Therefore, Whitetail Institute does not recommend natural product herbicides for weed control in food plots.

STRETCHING GLYPHOSATE SUPPLY

Folks who already have glyphosate can extend their supply by carefully matching the rate with weeds present. Common use rates of glyphosate range from 0.5 to 2.0 percent. Small annual

weeds can be effectively controlled with glyphosate mixed to make a 0.5 percent solution. The highest rate (2 percent) should be reserved for controlling woody weeds or any perennial species. For site preparation when grasses and broadleaf weeds are present, adding 2,4-D and/or triclopyr with a low rate of glyphosate will provide acceptable overall weed control.

DON'T FORGET ABOUT ROUNDUP

When this issue began to develop in Fall 2021, I contacted a friend with Bayer, the current owners of name-brand Roundup. Roundup products are formulated in the United States. Generic glyphosate herbicides are formulated overseas. However, the supply of Roundup remains linked to the availability of the active ingredient and inert carriers, which are manufactured overseas. Despite the vulnerability, Roundup might be available from time to time in the coming months. Roundup is more costly than generic glyphosate, but do not become fixated on the price differ-

ence. All glyphosate herbicides are going to be pricey in 2022.

DON'T WAIT

I encourage everybody to shop for glyphosate now. Procrastination might equate to weed control problems. I suspect that many food plotters purchase herbicides from common retail outlets. If those outlets do not have glyphosate, divert your shopping efforts to traditional agricultural suppliers. They will have glyphosate at times, and perhaps you can purchase or at least reserve glyphosate for a future purchase. Be prepared to buy glyphosate in case lots (two 2 1/2-gallon containers per case), not by the gallon. Traditional agricultural suppliers sell products packaged for large-scale use, not homeowner or intermediate use. Additionally, understand that traditional agricultural suppliers might first serve farmers and their large-volume customers.

While preparing this article, I was surprised to discover that many herbicides can be purchased on Amazon. A

search in February indicated generic glyphosate was available on Amazon, along with glufosinate. Triclopyr, an excellent herbicide for site-preparation weed control, can be purchased on Amazon. Other reputable Internet vendors might also have glyphosate.

In 2013, there was a shortage of .22 LR ammunition. At 6:30 a.m. every weekday, many customers clustered around a local department store's sporting goods section waiting for ammunition to be restocked. They cackled with glee when the heavily laden cart carrying ammunition came clanking down the aisle. That folly was repeated daily for months. The reasons for disruption in .22 LR supply were vague, but there was hoarding, which contributed to the chaos. My brother and I jokingly concluded that .22 LR ammunition had become a form of currency. In 2022, glyphosate is now a form of currency. Anybody want to swap .22 LR ammo for a quart of Roundup?



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