

# Removing Giant Miscanthus (*Miscanthus x giganteus*) in Agricultural Fields

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## Miscanthus Removal

Removal can be expensive and difficult, but it is possible. Miscanthus produces tons of biomass per acre that make mowing and tillage incredibly challenging. There has also been reports of popped tires from the sharp stalks left after mowing.

### Step 1: Remove Biomass

Taking biomass out of the field makes herbicide application and tillage possible. For removal, there are a few core options, harvesting the crop, mowing it and leaving it in field, and burning it. Harvesting it is limited due to the limited demand for miscanthus. Mowing or chopping it back into the field is less desirable than removing it completely but is likely the most obtainable option. The final option is burning the standing grass. Burning is not recommended unless there is approval from your local fire department. Burning off the Miscanthus will increase the plants vigor and you must follow a burn with an herbicide treatment. As of now I am aware of only one entity willing to custom mow miscanthus fields. Doxstader Custom Harvesting will mow miscanthus for \$62.00 an acre, leaving it in the field. You can contact Josh at 315-794-9088.

### Step 2: Herbicide Application

After removing the biomass, apply glyphosate at a heavy rates. This will be most effective if the Miscanthus has grown back to a height of 12 inches tall before applying. Even at a heavy application rate, one application may not get 100% control.

### Step 3: Tillage and Planting

After herbicide application we recommend regular tillage and planting Roundup Ready crops in order to expose any surviving Miscanthus to more applications.

## Nonchemical options

If herbicide is not an option, mechanical control can be performed in the form of constant mowing. Miscanthus can be killed by repeated mowing, but it may take 3 or more growing seasons. For this option we recommend mowing close to the ground twice a year to once a month during the growing season when it is active.

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## Cost to Remove

There are many different costs associated with Miscanthus removal, including mowing, herbicide applications, tillage, and nutrient replacement. As stated above, custom mowing may cost around \$60 per acre if you need to hire it done. Herbicide applications and tillage could cost up to \$100 per acre as well. Most Miscanthus fields will also need fertilized to become traditional row crop fields again. Overall, the cost to convert a field could be anywhere up to \$175 per acre. This will depend on many different factors and may be dependent on the situation. The main point being that there is a significant cost to removing Miscanthus.

## Possible Options for Landowners and Farmers

The options for landowners are limited due to the cost involved and the fact that most who rent their property do not have access to farm equipment. One option for landowners is to hire custom operators and agribusinesses to remove the Miscanthus. This would be a large up-front cost paid out of pocket by landowner. The land would be available to farm immediately by anyone willing to rent year to year. Another option is to make a deal with a local farmer to remove the biomass in exchange for not having to pay to lease the field for a couple years. The landowner will not have a huge up-front cost and the farmer will be able to farm the land 'rent free' after removing the Miscanthus. Any variation of this option is a possibility. We do recommend that any deal is confirmed by a written lease to hold both parties accountable. With the high cost of removal, 3-5 years without rent may be appropriate. One final option is working with Warrior Marketing LLC to help market your miscanthus. This option is dependent on demand and is currently very limited.



*Miscanthus field after being sprayed with a high dose of Glyphosate*