



Caption: Recent flooding has introduced silt and debris onto bottomland hay and pasture fields. Reclaiming these fields will take a variety of approaches.



Caption: White clover and fescue are tolerant of flooding. Silting can make first cuttings of hay dusty.

## Forages for flooded areas

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First published in *The Farmer's Pride*, 2021.

Devastating flooding has damaged pastures and hayfields in many areas of Kentucky. Damages range from dirt and silt to inches of sand left behind by the floodwaters. Debris such as limbs and trash are common. What are the forage options for situations like this? Here are a few ideas.

First, tall fescue and white clover are very tolerant of short flooding events and often come back 100 percent after these events. Watch fields closely to see if leaves are visible and to see how fast plants bounce back.

Some fields have been buried in sand along creeks and rivers; forages in these areas are often buried too deep to recover. Some cash hay growers are pushing the sand back to the field edges and using it to rebuild the protective berms along stream banks.

If removing the sand overburden is not possible, replanting will be necessary. For these situations, tall fescue is the practical solution. Tall fescue is the most widely adapted pasture grass in Kentucky and will grow well on sandy soils. Other short term options include annual ryegrass, spring oats and summer annuals. These options are outlined below.

- 1) Overseed tall fescue now with or without clover. Tall fescue will emerge better with some type of seed coverage, such as with a chain drag. Another option is to lightly disk prior to broadcasting the seed and then chain drag. If soils are firm enough, a no till drill will also work. Regardless of method, make sure that seed is covered but not over  $\frac{1}{2}$ ". If soils are really sandy then emergence from  $\frac{3}{4}$ " will likely be fine. The long term success of newly seeded fescue will depend on moderate temperatures and timely rains, at least until it gets a good root system. Orchardgrass can also be added this way.
- 2) For quick and guaranteed cover, choose annual ryegrass or spring oats or a mixture of the two. These forages will come up for sure though you will only get about 2 to 2.5 months from the oats and only about 3 to 4 months maximum from the annual ryegrass. Don't plant annual ryegrass anywhere that might be used to grow wheat for grain. Spring oats is the best bet for hay and will produce 1.5 to 2 tons per acre in 60 days. Oats are also good for grazing. Higher yields come from early (mid-March) seedings. If you choose annual ryegrass, use an Italian type if possible. Italian ryegrasses will produce few if any seedheads this summer; if the summer is mild then they can continue to grow into the fall. Feast II, Meroa and Tetraprime are Italian ryegrasses currently in UK variety tests. A good listing of Italian ryegrasses can be found in the 2020 Annual and Perennial Ryegrass and Festulolium report (Google 'PR786 UKY' then see Table 12). Marshall annual ryegrass is commonly available but will only provide cover until late May or early June at the latest because it makes a seed head and then dies.
- 3) Wait until May and seed a summer annual like sorghum sudangrass or crabgrass. Both will provide good summer growth. Crabgrass needs to be planted at  $\frac{1}{4}$  inch because of its small seed size. Sorghum sudangrass should be planted  $\frac{1}{2}$  to 1 inch deep. These summer annuals could be followed with a perennial cool season grass in the fall. For more information on sorghum sudangrass or crabgrass see the following links:

- a. <http://www2.ca.uky.edu/agcomm/pubs/AGR/AGR234/AGR234.pdf> Sorghum sudangrass and sudangrass
- b. <http://www2.ca.uky.edu/agcomm/pubs/AGR/AGR232/AGR232.pdf> crabgrass

Whatever grass you seed, adding a moderate amount of nitrogen (40 to 60 lb of nitrogen per acre) will make a big difference. There is likely very little nitrogen available in these flooded fields.

In short, observe flooded fields for stand loss and replant cool season species as soon as possible to allow root development before the high temperatures of summer. Debris will need to be removed as well. Silt and dirt left by receding waters can lead to dusty hay. If these fields are harvested as baleage, make sure to allow them to wilt to less than 60 percent moisture, bale tightly and wrap in six layers of plastic for best results. These practices will prevent secondary fermentation from the clostridial bacteria known to be in soil.

Happy foraging.