

WHAT'S YOUR CROPPING CONTINGENCY PLAN FOR WINTER-DAMAGED ALFALFA OR SMALL GRAINS?

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Every farmer has a cropping plan for the upcoming growing season. And anyone who's farmed for very long will also have flexibility and contingencies built into that plan. Every few years, a growing season comes along that demonstrates the importance of contingency planning. While it's still too early to know the overwintering outcome of winter small grains and perennial forage crops, this winter's weather patterns may have you thinking pretty hard about contingencies right now.

Your cropping contingency plan is to be acted upon in the event that your normal crop expectations become unlikely or can't be met. If winter weather has damaged your overwintering crops, the cropping and rotation decisions in your contingency plan may depend on how much feed is on hand and how soon you need a replacement crop harvest. The contingency plan may not be your first preference, but it may be necessary if unfolding events render your intended cropping plan less productive, especially if circumstances leave you short of conserved feed during summer months.

Alfalfa provides more crude protein yield per acre than any other crop. Therefore, losing substantial alfalfa to winterkill can be a main concern. Establishing new fields at spring planting can bring back productivity after the stand establishment phase, but can leave you with less harvestable crop, especially in the first half of the growing season. And what about winter small grains that have winter damage? You may want to consider a spring opportunity to replant those fields to a more productive option.

What's your contingency if you have fields of winter small grains and perennial forage crops that come through the winter in rough shape? Here are a few actions to consider:

Fill in sparse areas in alfalfa fields with ryegrass or red clover to get another season out of the stand. This can be a workable contingency when alfalfa seems to be strong in some areas of the field and weak or comatose in others. If the stand was already sparse going into winter, frost seeding red clover can be worth a shot. But if you have to wait for alfalfa to green up in order to know the stand survival outcome, it will be too late for frost seeding. In that case, filling in sparse areas with Italian ryegrass for rapid establishment may be enough to keep the field productive for another season.

Establish new alfalfa fields to take the place of fields with severe winter damage. If a late-summer alfalfa seeding from the prior year is winter-damaged, you should be able to overplant or replant in the same field this spring, with little fear of autotoxicity. Fields with older stands, especially stands more than a year old, will need to be rotated out of alfalfa for a year. Planting with oats as a nurse crop can offer a forage yield boost with the first cutting.

Take out a damaged alfalfa stand early enough to plant a full-season crop of corn silage. This can be the most productive option if an alfalfa field is severely damaged. If your feed inventory is strong enough to last until corn silage harvest, full-season corn silage is a good bet for its combination of dry matter yield and starch. Full-season corn silage is almost always more productive than a late-planted, short-season corn hybrid. Long-term trials at Arlington, WI, showed that terminating a stand of alfalfa in time to plant full-season corn silage had the highest total dry matter yield in the majority of years, versus taking a first cutting of alfalfa followed by late-planted corn silage. Yield in the stover fraction of late-planted silage was similar to stover yield in full-season silage, but overall yields were less in late-planted corn silage due to reduction in grain content.

Take the first cutting from a damaged alfalfa stand, then follow up with forage sorghum or a sorghum-sudangrass hybrid. Sometimes alfalfa can be winter-damaged enough that you want to take out the stand, but good enough to get a reasonable first cutting before terminating the stand. That prospect is even more tempting if you need that first cutting to feed during the summer. You can follow up with a short-season corn hybrid and hope to get some grain in the silage. Or you might consider sorghum species as an alternative. Forage sorghum grows all summer, is harvested at maturity, and can form some grain if the maturity you choose is right for your area. BMR sorghum-sudangrass is a highly digestible forage, typically cut two or even three times during the growing season. BMR sorghum-sudangrass usually yields less than forage sorghum but has higher feed quality. Also, consider that you don't have to wait as long as corn silage for harvest.

Overseed a damaged field of winter wheat with forage oats and peas for a mid-season forage harvest. Many dairy farmers have experience with this combination or know someone who has. Adding field peas to oats in mixture does not increase overall yield, but it does enhance protein by 3-4% over oats alone. Forage oat varieties are typically later than varieties bred for grain, giving more time for the peas to grow and accumulate protein. The mixture should be cut when oats are in the boot stage for best feed quality. If you overplant oats and peas into a field with significant areas of winter small grains still growing, the winter small grain portion of the field should reach boot

stage before the oats, and that could lead to a compromise in either yield or quality depending on which species you decide to set your harvest by.

Other Considerations:

Scout fields when the snow melts off, to look for signs of winter damage. Even if plants that are still dormant look okay, scout again as spring green-up occurs. Damage that covers an entire field is disappointing, but the decision to take out the stand can be straightforward. More often, winter damage is not uniform across fields due to differences in topography, snow cover, ice formation and duration, plus soil type and drainage. Non-uniform winter-damage situations may take a little more time to evaluate if your early observations aren't definitive.

Remember to take advantage of the alfalfa nitrogen credit when you rotate. A winter-damaged stand of alfalfa that was a good stand last fall can be expected to provide all the nitrogen needed for a following grass crop species, including corn or sorghum-sudangrass.

By some planting date around early to mid-June (depending on your latitude), BMR forage sorghum or sorghum-sudangrass may begin to equal the expected yield or digestibility of late-planted corn silage. These crops have an advantage if summer weather turns droughty, and they have reduced seed and pesticide costs versus corn silage. Plus, sorghum-sudangrass provides an option for early harvest.

The table shows relative comparisons for yield, quality, and harvest timing, all of which will need to be considered if you have to pull the trigger on your cropping contingency plan.

Agronomic and Feed Constituent Comparisons of Some Contingency Cropping Options

Characteristic	Alfalfa Productive Stand	Alfalfa Winter-Damaged Stand	Oats Boot Stage	Peas+Oats Boot Stage	Corn Silage Full Season	Corn Silage Late Plant	Forage Sorghum	BMR Sorghum-Sudangrass
DM Yield	+	---	-	-	+++	+	++	+
Crude Protein	+++	+++	-	+	---	---	---	--
wNDFD	-	-	-	-	+	+	-	++
Starch	--	--	+	-	++	+	+	--
Earlier First Harvest	+++	++	+	+	--	---	---	-

Resources: The following publications, articles or presentations offer useful information about forage cropping options:

[Sorghum Nutrition Guide](#)

[Pea and Small Grain Mixtures](#)

[Planting Corn for Silage after a First-cut Alfalfa Harvest](#)

[Forage Sorghum](#)

[Field Pea Grain and Forage for Beef Cattle](#)

[Annual Cool-Season Forages for Late-Fall or Early-Spring Double-Crop](#)

[BMR Sorghum Sudangrass vs. Late Planted Corn](#)

[Role of Alfalfa in Dairy Diets](#)