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Hybrid fall rye offers high yield, flexibility to beef producers



Rye ready for chopping at milky head stage. Photo: Herman Wehrle

Hybrid fall rye is one of the newer forage options available today, and can be a good fit to producers looking for a high-yielding feed with flexibility.

Herman Wehrle, director of commercialization and market development at FP Genetics, says his job is to bring new crops to the marketplace. "After five years of commercialization, we still call hybrid rye a new crop. It is a new tool in the kit bag for forage production."

FP Genetics markets two hybrid rye products for forages. One is KWS Progas, specifically designed for forages, and the other is Brasetto, which can be used as a dual-purpose product for forages and grain.

Five considerations

"When we look at forage production, we always look at flexibility and risk management as the cornerstones. Most farmers have a certain base of perennial forage crops and fill in the balance with annual crops. With fall rye, we see five key areas for considering hybrid fall rye," says Wehrle.

"The first is that hybrid rye is in the annual crop segment as a winter cereal. You seed it in the fall and it overwinters and is the first thing that gets going in the spring."

Wehrle says one big plus is that hybrid fall rye is much hardier than winter wheat. Hybrid rye "builds a robust root system" in the fall, he explains, allowing it to emerge quickly in the spring and better manage environmental stresses that it encounters later in the season.

Second, this makes hybrid rye the earliest forage available — about two weeks earlier than winter wheat, three weeks earlier than perennial grass pastures and a month earlier than spring crops, says Wehrle. This provides an earlier feed for livestock. It also gives producers a chance to spread workload and weather risk because some of the forage production is now a winter cereal, which has different timings for planting, growing and harvest.

The third thing is that this rye has very high yield potential. "The hybrid vigour kicks in to increase yields. The grower can expect, on average, about 15 to 20 per cent increase in dry matter yield over a spring cereal. This is significant, in extra forage production," says Wehrle.

"We've seen yields as high as 18 metric tonnes per acre on irrigated land. You probably won't get this on dryland, but it does have that potential if the weather is favourable or you have irrigation," he says. In general, producers see yields of eight to 12 metric tonnes on dryland.

The fourth point is that hybrid fall rye provides excellent forage quality.

"As an example, we're seeing in-vitro digestibility in the high 60s and low 70s with protein around 10 to 12 per cent when we look at whole grain, and this is generally what is looked at and required for the beef market," he says.

"At boot stage, looking at the leaf portion, we are seeing digestibility at more than 90 per cent digestible, with protein levels above 16 per cent," he says. This makes it ideal as grazing forage for young stock or for situations where producers need a higher digestibility and protein. Cattle also do very well grazing it in the fall.

"When you put high yield together with high digestibility, you have very nice productivity per acre with hybrid rye versus other cereals. At the end of the day, it's all about feed conversion and being able to produce more beef per acre," Wehrle says.



Harvesting hybrid fall rye. photo: Courtesy Herman Wehrle

The fifth point is the double-cropping potential, Wehrle says. For example, if a producer seeded it in late summer, it could be harvested the next year in mid- to late June. In southern regions, the producer could then follow it with an annual forage such as oats or barley.

"You can also use the double-crop opportunity for grazing. If you plant an annual cereal and take it off in mid-July, you could replant that field to hybrid rye at the end of July, have it establish in late summer/early fall and graze it in October. Then you can let the forage stand overwinter and take it for forage the following spring," he says.

Some producers are considering grazing it in the fall and again in the early spring, he adds. That would allow them to graze the early hybrid rye growth before the perennial pastures are ready to graze.

Wehrle says they're still learning about double cropping, and sees the grazing/silage double-crop option as particularly appealing. But ultimately much of the double-cropping is better suited to southern regions.

"In the north, you start running out of time with a shorter growing season. One of the things we're trying to learn right now is how far north we can push the double cropping, but the grazing/double cropping can be accomplished anywhere," he says.

Wehrle says they're excited about hybrid fall rye. "It won't be the silver bullet for forage production, but will be an important tool that a grower can use along with perennials and other annuals, to build a more robust forage production system. It will add a lot more flexibility and risk management."

A seed grower's take

Greg Stamp, seed sales manager for Stamp Seeds, says his company has been marketing seed for KWS. One of the newer hybrids is called Propower.

"This is a hybrid rye owned by KWS, a German seed company. They sell this variety in the U.S. and Canada and market it through SeedNet, the seed company we are part of. This is how we have access to sell this variety in Canada," he says.

Stamp Seeds grows, conditions and retails the hybrid rye variety. They get two different varieties from Europe and blend the seed. They then grow the seeds for the hybrid.

"Then we clean the seed, process and test it and ship it out. It's generally a quick turnaround. Right after we grow and clean that crop, we are often shipping those seeds to customers a couple weeks later," he says.



Propower hybrid fall rye seeded in early October. photo: Greg Stamp

KWS does the genetic selection for creating the hybrid. "In the field, however, we have one variety for pollen receiving and another variety is pollen-giving. The pollen is flying from one plant to the other and that's how we create the hybrid in our seed crop. The parent plants are both rye, but sometimes two non-similar genetic varieties make the best hybrid, getting the best traits from both," he says.

"The next year's crop of plants may be a bit different; sometimes our seed-producing plants are shorter or taller, and what our customer grows from those seeds could be very different from what we see in the field. But the certified seed that we sell has been tested and selected to be consistent in desired traits. Farmers who buy certified seeds can buy these hybrids, with high yield potential," he says.

Stamp says that they also carry some inventory, selling in the early spring to people who want to seed in the spring and graze it several times over the summer. Some customers also blend it with something else to create a grazing or silage blend, he adds.

"Then they have the rye growing afterward for fall or winter grazing," says Stamp.

The seeds are sold in units, and a unit is one million live seeds. "The amount of pounds per unit, or what you plant per acre may be different, however, depending on each seed lot. We may sell 28 units per tote bag, and that's standard use rate — 100,000 seeds per acre," he says.

The hybrids are hardy and recover faster from grazing as well as yielding more than most traditional crops. "They have a 20 to 40 per cent yield advantage over traditional fall rye varieties. The hybrid can take more abuse, such as heavy grazing or drought, and still perform, as long as the plants have some moisture," he explains.

Some rye plants are at risk for ergot in the seed heads, and you wouldn't want to leave them growing to full maturity. For forage, you won't have that risk, however, because the plants are harvested or grazed before reaching full maturity, with better feed value in the immature still-growing plants.

"Even if you are harvesting for silage, you are cutting it early, before the seed heads get mature," Stamp says.

Stamp says there's no benefit to letting rye grow longer, as it doesn't gain much tonnage. If you leave it too long before cutting, the rye will simply be poor quality, he adds. "Rye should be cut when the head is in the milk stage, before the stalks get wiry and coarse."

Producers can spread out their silage season by using different crops. "Some people in my area are double-cropping with rye, on irrigated land. They take the rye off in late June or early July and then plant barley or oats to either graze or harvest as bales or silage," he says.

Weather is, as always, a factor. One fall it might work great and another year may be different, but it spreads the risk to have other silage crops still growing. A person might cut barley, then hybrid rye, then corn or wheat. Growing rye spreads and expands that silage window.

This provides another option when growing forage for beef cattle. "Some farmers plant it for grazing, planting in the fall and grazing it in the spring, and then multiple times during the summer. Some people let it overwinter and use it for forage the next year."

The hybrid rye winters fairly well, similar to other fall ryes used in Canada. "It does a little better than winter wheat in our area.

The hybrid rye is similar in hardiness to traditional rye," says Stamp. Hybrid rye is becoming more popular with farmers, Stamp adds. "It meets the needs for many people and diversifies the way they can grow crops — spreading the risks — and is making more net profit per acre."