Noble releases four new small grains forages

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In the early 1950s, the Noble Foundation established its forage breeding program, specifically developing improved cultivars for four small grains species: rye, wheat, oat and triticale (a rye/wheat hybrid). Through the generations, the program has developed historic new cultivars, such as Elbon, Oklon and Maton rye varieties, that have enhanced agricultural production. Today, the Noble Foundation’s small grains breeding program is the longest running breeding program in the Foundation’s history. This ongoing work has produced four new small grains cultivars over the past few years that have been released by the Noble Foundation and will be commercialized by Oklahoma Genetics Inc. Each of these continues the rich legacy of cultivar development started more than 60 years ago.

Wheat NF101

Virtually all wheat breeding focuses on grain yield and quality. The main goal of the Noble Foundation’s small grains breeding program is to develop dual-purpose cultivars with high fall and winter forage yield suitable for sustainable forage production in Oklahoma and northern Texas, and which also have better grain production. NF101 wheat is the first wheat cultivar developed at the Noble Foundation for these purposes. NF101 is an awned, hard red winter wheat that was released in 2014. During seven years of testing in southern Oklahoma, NF101 produced the greatest fall-winter forage yield when compared to Jagger or Endurance. Under rain-fed conditions, NF101 is an excellent choice for producers wanting to maximize their fall forage production. NF101 is well adapted to southern Oklahoma, northern Texas and also to the southeastern United States. Heading is similar to Jagger and three days earlier than Endurance with intermediate to moderately good straw strength.

Wheat NF101
**Triticale NF201**

Released in 2013, NF201 triticale is an alternative small grains forage for producers. Compared to wheat, triticale is more productive on marginal lands and requires less management under stressful conditions. NF201 has shown excellent fall and winter forage production, making this triticale the best choice for producers who need forage for early winter grazing. In seven years of testing in southern Oklahoma, the fall forage yields of NF201 were equal or superior to Thundercale and Tamcale 5019. In eastern Texas, performance of NF201 was superior to check cultivars for early season yield. NF201 is best adapted to the areas of southern Oklahoma and northern Texas.

**Maton II Rye (NF306)**

Maton II (NF306) is a forage rye cultivar that was released in 2006. It is intended for use in fall through winter grazing systems. This variety builds upon the Noble Foundation’s previous release, Maton. Maton II (NF306) produces more total forage when compared to the commonly grown rye cultivars Elbon, Maton and Oklon in southern Oklahoma. More than half of its total yield is produced during the early growing season (November to February). Maton II (NF306) has early fall and winter forage production potential. Morphological and agonomic attributes are similar to Elbon and Maton, but Maton II tends to have slightly taller plants with bigger leaves and thicker stems. Maton II is especially suited to light-textured and sandy loam soils. Maton II (NF306) is well adapted to southern Oklahoma, northern and eastern Texas, and throughout the southeastern United States. Crude protein content of Maton II (NF306) forage is higher than that of Maton or Oklon. Winter hardiness and lodging resistance are similar to Maton in southern Oklahoma.

**Oat NF402**

NF402 is a facultative winter-type forage oat that was released in 2013. It is intended for pasture and forage production, especially during the fall-winter period. In seven years of testing in southern Oklahoma, NF402 produced more total forage than most commonly grown oat cultivars, with nearly half of the production.
The Noble Foundation forage breeding program continues its focus on creating dual-purpose cultivars with improved forage qualities – better fall production, the ability to recover after grazing and better overall forage yields to benefit livestock production in the Southern Great Plains and southeastern United States. For more information, contact the Noble Foundation for the brochure *Forages for the Southern Great Plains.*

The early fall-winter forage production of this oat is particularly valuable, allowing producers better flexibility for earlier grazing or increased stockpiling. Its maturity, and morphological and agronomic attributes are similar to Dallas. NF402 is ideally adapted to the Southern Great Plains and adequately adapted throughout the southeastern United States. Forage nutritive value of NF402 is excellent with crude protein levels higher than that of Dallas and Harrison. In southern Oklahoma and northern Texas, NF402 has exhibited complete or partial senescence during winter but excellent recovery during spring. NF402 has demonstrated better freeze tolerance than many other cultivars developed for the southern United States.