Alfalfa Variety Description Summary Page

Date Recommended by AOSCA: 03-03-2025

Amendment Pest Resistance: 01-21-2026

General Varietal Information

Variety Name: **Experimental Designation:** FG H0416C4112, 4121624H

Origin and Breeding History

FG H0416C4112, 4121624H is a synthetic variety with 45 parent plants. Parent plants contain the commercial HarvXtra event KK179 and the Roundup Ready event J101. Plants were selected from FGI breeding lines for reduced lignin as measured by ADL, glyphosate tolerance, forage yield, persistence and/or resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose (multiple races), Phytophthora root rot, stem nematode, northern root knot nematode and Aphanomyces root rot (multiple races). Phenotypic and genotypic selection was used to identify the parent plants. The following germplasm sources were used in the development of this variety: various FGI experimental populations (100%). Syn1 seed was harvested and bulked to form breeder seed from a field or cage isolation near Nampa, ID in August 2016.

Areas of Probable Adaption

Probable primary usage of this variety: Hay, Haylage, greenchop, dehydration
States and/or provinces and countries where this variety has been tested for forage yield, winterhardiness, and/or persistence: Wisconsin and Pennsylvania
Areas of adaptation: North Central and East Central
Areas of intended culture: Moderately Winterhardy Intermountain, North Central, East Central, Great Plains and Winterhardy Intermountain

Agronomic and Botanical Characteristics

Syn. generation observed 2

92 **%Purple** 2 **%Cream** trace **%Yellow** 5 **% Variegated** trace **% White**

FG H0416C4112, 4121624H is Moderately Fall Dormant, similar to the FD4 check. This variety is also Extremely Winterhardy, similar to the WH1 check. FG H0416C4112, 4121624H is Roundup Ready.

FG H0416C4112, 4121624H has high resistance to Anthracnose (Race 1), Anthracnose (Race 5), Bacterial wilt, Fusarium wilt, Verticillium wilt, Phytophthora root rot, Aphanomyces root rot (Race 1) and Aphanomyces root rot (Race 2); with resistance to stem nematode, pea aphid and spotted alfalfa aphid.

Procedures for Maintaining Seed Stock

Breeder seed (Syn1) was produced in 2016 near Nampa, Idaho. Seed increase is on a limited generation basis with one generation each of breeder and foundation and two generations of certified seed classes. Breeder (Syn 1), foundation (Syn 2), and certified (Syn 2 or Syn 3) classes will be recognized. Production of Syn 2 foundation seed requires consent of the breeder. Forage Genetics will maintain sufficient foundation seed for the projected life of the variety. Stands of foundation and certified seed fields are limited to 3 and 6 years, respectively. At least one glyphosate application is required during early stand establishment so that cp4-epsps null segregant plants are removed from the seed field prior to pollination. (Null segregant plants are the plants that do not contain the Roundup Ready® trait due to normal genetic segregation in this variety). The Roundup Ready® trait is a patent protected trait; any and all seed increase on this variety requires a FGI seed production contract for Roundup Ready Alfalfa.

Certified Seed Availability and Publication of Certified Seed Production

Certified seed will be available for sale in the spring of 2025 if is accepted for certification.
The applicant requests that certified seed acreage not be published by AOSCA and its agencies.

Generations Allowed – Mark All That Apply	Length of Stand Limitation
Foundation: X Registered: N/A Certified: X	Foundation: 3 Registered: none Certified: 6

PVP Information

State whether application will be submitted for protection under the Plant Variety Protection Act and if so, whether or not the Title V certification option will be requested (to be sold by variety name only as a class of certified seed).
No decision has been made regarding submission of an application for Plant Variety Protection. The information in this application may not be forwarded to the PVP office.

As a means of enhancing varietal protection, state whether or not AOSCA may provide descriptive information about this variety to the PVP office.
The information in this application may not be forwarded to the PVP office.