

A REPORT OF THE
HEMP VARIETY REVIEW BOARD



ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES

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September 21, 2023

The Association of Official Seed Certifying Agencies (AOSCA), Hemp Variety Review Board (HPVRB), reviewed the following varieties on January 6, 2023. The Board recommended the inclusion of these varieties for certification. Seed of these varieties may be certified, providing production meets all standards of the Seed Certifying Agency of the jurisdiction in which the seed is grown.

All variety information, including descriptions, claims, and research data to support any claim, was supplied to the Hemp Variety Review Board by the applicants. The Hemp Variety Review Board makes judgments regarding recommendation of varieties for inclusion into certification based on the data supplied. Beyond that, the Hemp Variety Review Board takes no position on the accuracy or truthfulness of any description or claim made by the applicants.

Further information on current procedures, application forms, and detail regarding the Hemp Variety Review Board can be obtained from:

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Respectfully submitted,

Thomas Hardiman, Chairman
Hemp Variety Review Board

2023 AOSCA HEMP VARIETY REVIEW BOARD

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Cornell University GVA-H-22-1061 (Exp. Designation)

This cultivar was selected by Larry Smart, Jamie Crawford, Maylin Murdock, and Jacob Toth at Cornell University from a high THC containing open source landrace obtained from China through the internet. We used marker-assisted selection for the presence of CBDA synthase genes and have obtained a cultivar that can be grown as a dedicated fiber crop north of 32°N in the United States depending on precipitation frequency and intensity of the area. We selected for height, flowering time uniformity, and vigor.

It flowers very late in NY, resulting in tall growth and high fiber yields, but in a typical season, frost will kill the plants before they are able to mature seed. Therefore, it is not viable for grain production north of 32°N and seed multiplication must be done at very low latitudes (south of 32°N) in locations without frost. These areas, such as west TX, AZ, or NM will likely require irrigation for seed multiplication. We have evaluated it in NY, NC, KY, FL, TX, and AZ, and it has performed well across all of those locations. We expect it to perform well as a dedicated fiber crop across the northern half of the United States (35°N to 49°N) under dryland cultivation with heights increasing where early seeding is possible and in proportion to optimal soil moisture. At far southern latitudes (south of 35°N), we expect that it will not go to flower even if planted well before the solstice (late March) and will grow very tall for fiber or biomass production.

This cultivar grows tall with moderate branching only at the top of the canopy. It is a dioecious variety, and the male flowers emerge earlier than female flowers (flower color white to pale yellow: RHS 4D). The male flowers can display moderate purple anthocyanin color (RHS 186C, dark purplish pink) before dehiscence, so will appear white, light pink, or purple. It produces relatively large seeds, which has resulted in good establishment ability across multiple sites. It has large leaves, long internodes, grows vigorously, and flowers very late compared to other approved fiber and grain cultivars, even at southern latitudes with short daylengths.

In field trials, it has displayed little damage from insects and low incidence of disease, but it has not been challenged in insect feeding trials or controlled pathogen inoculations.

Cornell University will maintain archival stocks of breeder seed but has intent to license this cultivar to International Hemp for co-maintenance of breeder seed, multiplication of foundation, registered and certified classes of seed and for marketing and commercial sale.

Breeder seed will be used for production of foundation seed in 2023. That will be used to produce certified seed in winter of 2023-24 for sale in 2024 if a suitable location is secured. Otherwise, certified seed will be produced in 2024 for sale in 2025. Certified seed production acreage may be published by AOSCA and certifying agencies.

US PVP will be sought with the Title V option and descriptive information may be sent to the PVP database.

Cornell University **GVA-H-21-1135 (Exp. Designation)**

This cultivar was selected by Larry Smart and Jacob Toth at Cornell University from a high THC containing open source landrace obtained from China. We used marker-assisted selection for the presence of CBDA synthase genes and have obtained a cultivar that can be grown as a dual-purpose crop (grain and fiber) in northern states and a high-yielding grain crop in southern states. We selected for grain yield, height, flowering time uniformity, large seed size and high proportion varin cannabinoid content, which also contributes to compliance.

It flowers relatively late in NY, resulting in tall growth and high fiber yields, but will flower earlier in southern states, so unless it is planted very early, fiber yields may not justify a dual purpose harvest. We have evaluated it in NY, NC, KY, FL, TX, and AZ, with good results in each of those trials. We expect it to perform well as a dual-purpose crop across northern states (north of 42°N - WA, OR, ID, MT, ND, SD, IA, MN, WI, MI, NY, VT, ME) and if planted early in southern states (31°N to 42°N) under dryland conditions (eastern NE, KS, OK, TX; also MO, AK, IL, IN, OH, TN, MS, AL, GA, SC, NC, KY, WV, VA, PA, NJ, MD, DE) and under irrigation in CO, CA, AZ, NM, and western NE, KS, OK, and TX. If planted closer to the solstice in southern states (below 37°N), it will grow to a proper height for combine harvesting of grain.

This cultivar grows tall with moderate branching, which increases floral production and grain yield. This variety is dioecious and male flowers appear before female flowers. Male flowers have little anthocyanin coloration and appear mostly white to pale yellow (flower color: RHS 4D). It produces large seeds, which are retained well during maturation. It has shown good establishment across multiple sites, has large leaves, grows vigorously, and flowers later than other grain cultivars.

In field trials, it has displayed little damage from insects and low incidence of disease, but it has not been challenged in insect feeding trials or controlled pathogen inoculations.

Cornell University will maintain archival stocks of breeder seed, but has intent to license this cultivar to International Hemp for co-maintenance of breeder seed; for multiplication of foundation, registered and certified classes of seed; and for marketing and commercial sale.

Breeder seed will be used for production of foundation seed in 2023. That will be used to produce certified seed in winter of 2023-24 for sale in 2024 if a suitable location is secured. Otherwise, certified seed will be produced in 2024 for sale in 2025. Certified seed production acreage may be published by AOSCA and certifying agencies.

US PVP will be sought with the Title V option and descriptive information may be sent to the PVP database.

OATS Global Group
Variety Name – Zero THC
SOTE757.Z.1 (Experimental Designation)

Variety Zero THC was derived from the cross of a plant from a plant with high CBG and low THC and crossed with the Cherry Blossom industrial hemp strain. The cross from which Zero THC is derived was made in spring 2020. The original plant was selected for its high CBG and THC Free potency levels and was crossed with Cherry Blossom pollen for its resilience in a wide range of climates, thick stems, and long internode spacing. The breeder is Omni Agricultural Trend Seed (OATS) Farm.

The variety will be utilized for industrial use for fiber and grain. Proposed areas of recommendation and merchandising include industrial hemp applications for hemp products utilizing bast fiber, hurd, CBG, and with applications for animal feed.

Characteristics to be used for field inspections of the variety by our staff for selection include height of 8'-10', width of 3', minimum bottom branch length of 4', classic narrow sativa leaves that stand at attention, uniformly green in color, with strong stalks, buds that are spread throughout the plant, stems capable of holding themselves up, and without disease, discoloration, or curling leaves.

The variety has been vulnerable to Southern Blight (*Sclerotium rolfsii*).

Canna Culinarian, LLC incorporated in Virginia is our VDACS licensed processor and maintains generations of stock seed. Seed undergoes quality control checks for appearance checking for shape and color, is counted, packaged, and vacuumed sealed to protect the seed from light, moisture, and air. Seed packaging is labeled per VDACS standards, lotted, and kept refrigerated to maintain optimal seed shelf life at the secure location registered with VDACS for processing and storage 3351 Chesapeake Blvd, Norfolk, VA 23513.

Upon Date of Certification, the certified seed will first be offered for sale. Certified seed for production acreage can be published by AOSCA and certifying agencies. Current recommendations for variety Zero THC are for CBG 2500 seed per acre and for fiber 25,000 per acre.

Zero THC will be submitted for protection under the U.S. Plant Variety Protection Act and that the seed sold by variety name Zero THC must be certified (Title V Certification Option). AOSCA may provide descriptive information to the PVP database.

Variety name Zero THC has been cleared by the USDA.