Thank you for your interest in submitting the two applications for review by the Colorado Seed Growers Association (CSGA) Industrial Hemp Seed Variety Review Committee and the second application for entry into the Colorado Department of Agriculture (CDA) THC evaluation trials. Submission of these two applications with appropriate fees and approval by the review and successful THC evaluations will allow the variety into seed certification and be labeled by CSGA as a CDA Approved Certified class of seed. The following information provided below may be useful to you as an applicant or seed grower.

1. **Step One**- The one-time seed variety application submitted to CSGA will be reviewed by the CSGA Seed Variety Review Committee. If approved, the seed variety can be conditionally accepted into the CDA Approved seed certification program. The CDA application will provide entry into the CDA statewide THC seed variety evaluation trials. You are also reminded that the CDA will require all industrial hemp growers to be registered annually with the State of Colorado. Completion and submission of both documents is crucial for the approval process. If CSGA or the CDA has any questions in regards to your application, you will be contacted directly.

2. **Step Two**- The CSGA Industrial Hemp Seed Variety application will be reviewed by the CSGA Review Committee. If approved, then the seed variety will be accepted “conditionally” into the CDA Approved seed certification program and become eligible for CSGA field inspections. In this same timeframe the CDA application will allow the seed variety to be entered into the CDA Industrial Hemp THC evaluation trial. This CDA industrial hemp trial will evaluate the anticipated level of THC for each submitted seed variety. The actual seed production fields will be inspected by CSGA. CDA will collect plant samples and evaluate for THC compliance in all locations for the seed variety. The plant sample evaluation of this trial will help CDA determine if the seed variety can be fully accepted by CSGA and CDA as a **CDA approved certified seed variety of industrial hemp**.

3. **Step Three**- The next step for the applicant or grower will be to complete a CSGA Field Application. The “Field Application” will be completed for the seed variety and submitted with the appropriate fees to CSGA. CSGA office will schedule the field inspections to be completed. There will be at least two field inspections during the growing season. Once the field has passed the field inspection process, the grower will be notified of the progress.

4. **Step Four**- The Industrial Hemp seed field should be harvested at maturity and a representative sample of the conditioned (cleaned) seed is analyzed for purity and germination by the Colorado Seed Lab (CSL). If the sample has passed the established minimum seed standards, the field inspected seed may be eligible for labeling as a class of certified seed.

5. **Step Five** If the seed variety approved by the CSGA review committee and conditionally accepted into CDA Approved seed certification along with the same variety having passed the statewide CDA THC evaluation may become eligible to be labeled as a CDA Approved Certified Industrial Hemp seed variety by CSGA and CDA.

**CDA Approved Certified Industrial Hemp Seed Process Summarized:**

a. Submit application to CSGA for the seed variety to be entered into the CSGA I-H CDA Approved Certified program.

b. Submit application to CDA for the seed variety to be entered into the CDA I-H THC evaluation statewide trial.

c. Submit field application for field inspection to be performed by CSGA inspector.

d. Submit a representative clean field inspected seed sample to the Colorado Seed Lab for germination and purity evaluation.

e. If the seed variety passes all criteria of the THC evaluation process along with the field/seed certification standards have been met, seed tags for the appropriate seed class can be issued by CSGA/CDA.
Colorado Seed Growers Association (CSGA)
Application for Hemp Variety Certification Eligibility

Applicant Contact Information:

Applicant_____________________________________________________________

Address_______________________________________________________________

City________________ State____________ Country _______ Postal Code______________

Office Telephone______________      Fax_____________       Cell number________________

Email Address______________________________________________________________

Crop:

Common Name for Crop Kind or Species: ___Industrial Hemp_______________

Scientific Name for Crop Kind or Species: ______________________________________

Sub-Kind (eg. hybrid, inbred, forage type): ______________________________________

Experimental Designation(s): __________________________________________________

Proposed Variety Name: _____________________________________________________

Hybrids, provide all pedigree information: _______________________________________

Derivation of Inbred / parent lines: _____________________________________________

Type of Application:

Was this variety previously certified by another official certifying agency? _____________

If it was previously certified, please attach proof of certification from that agency.

Has this variety been marketed in another country if any? ______________

Has this variety been marketed in another country by another name: ______________

• If this variety has been marketed in another country under a different name please provide written
  authorization with this application from the variety owner authorizing your use of the proposed
  name in this application.

• If the applicant is not the owner, please provide adequate documentation and signatures with this
  application that authorize seed multiplication and marketing of seed of this specific variety in
  Colorado.
Origin and Breeding:

Name of Breeding Institution________________________   Breeder____________________________

Address______________________________________________________________________________
_____________________________________________________________________________________

Office Telephone______________         Fax______________________ Cell number________________

Email address_______________________________________________

Provide information to fully explain the genetic back-round of this variety:
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________

What breeding techniques were used in developing this variety?
_____________________________________________________________________________________
_____________________________________________________________________________________

In what generation was the selection made? ________________________________________________
In what generation was the breeder seed first bulked? ______________________________________
How many lines were bulked to form this variety? ___________________________________________

Seed Stock Maintenance:

Classes for Seed Certification     Foundation_____          Registered _________      Certified_________

Breeder Seed Maintainer Name__________________________   Contact_________________________

Address______________________________________________________________________________

Telephone__________________    Fax ___________________   Email____________________________

• If the seed stock maintainer is not the owner of the variety, a letter of authorization for maintenance from the owner will be required to be included with this application.

Additional Comments:
Variety Description:

Experimental Designation____________________   Variety Name_______________________

Crop Kind (species) ___________________________

Breeder (name) _______________________________

Address____________________________________________________________________

Applicant (name) ______________________________

Address ______________________________________________________________________

Seed Distributor (name) _____________________________

Address ______________________________________________________________________

Taxonomic Classification: _______________________________________________________

THC content: ___________________________________________________________________

Sexual Type:     dioecious______  monoecious_________  hybrid_________

Flowering Type:  male_______       female _______  male & female   _________

Time of Flowering: ______________ number of days after planting

Disparity of Female Flowering to Male Flowering: _______ number of days

Plant Height (including inflorescence): short _____ medium _____ tall ______

          Height range _______ cm to _______ cm

Plant Branching: few _______  medium _______  numerous _________
In the middle third of the plant:

Stem Internode Length: short ______ medium ______ long ______

Stem color: yellow ______ green ______ grey ______ red ______

Leaf Color: yellow ______ green ______ grey ______

Leaf Intensity: weak ______ medium ______ strong ______

Leaf Size: small ______ medium ______ large ______

Inter-Sex Combination within the Female Plant Population (Sengbusch Scale):

The Sengbusch Classification system defines five degrees of monoecious forms: Type 1, 80-90% male flowers; Type 2, 60-70% male flowers; Type 3, 40-50% male flowers; Type 4, 10-30% male flowers; Type 5 less than 10% male flowers. The second and third types are considered “ideal” for monoecious cultivation. The too male (1st degree) and predominantly female (4th and 5th degree) types are removed before flowering.

<table>
<thead>
<tr>
<th>% Male Flowers</th>
<th>% Female Flowers</th>
<th>10 to 20</th>
<th>30 to 40</th>
<th>40 to 50</th>
<th>70 to 90</th>
<th>mainly</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 to 90</td>
<td>type 1= %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60 to 70</td>
<td>type 2= %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 to 50</td>
<td>type 3= %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 to 30</td>
<td>type 4= %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>less than 10%</td>
<td>type 5= %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Stem Grooves: _____________________________________________________________

Leaf Anthocyanin Coloration: absent______ weak______ medium______ strong______

Male Flower Anthocyanin Coloration: absent______ weak______ medium______ strong______

Hairs on Calyx: _____________________________________________________________

Seed Size and Shape: ___________________________________________________________

Variants and Acceptable levels: __________________________________________________________

_____________________________________________________________________________________

Description of off-types: _______________________________________________________________

I, the applicant do affirm the information provided in this industrial hemp cultivar application for entry into the Colorado Seed Growers Association Seed Certification Program is to the best of my knowledge is complete and accurate. I affirm that the reference seed sample submitted along with the application represents the cultivar described in this application. I accept full responsibility for any statements or claims made in this application.

___________________________________  ______________________
Applicants Name Printed     Date

____________________________________
Applicants' Signature
Colorado Department of Agriculture (CDA) Application for Approval of Industrial Hemp Variety Certification Eligibility

Applicant Contact Information____________________________________________________
Applicant_____________________________________________________________________
Address_______________________________________________________________________
City_____________________   State____   Country______________   Postal Code___________
Office telephone _____________________   FAX____________   Cell Number_______________
Email Address__________________________________________________________________
Industrial Hemp Proposed Variety Name_____________________Year Named_________
Experimental Designation_________________________________________________________
Class of Seed submitted for trial and multiplication________________________________
Seed Lot Number__________________Year Produced_________________________________
Class of seed to be produced______________________ in growing season year 2016.
Date Colorado Seed Growers Application for Hemp Variety Certification Eligibility Filed_______
Date Variety accepted by the CSGA______________
Trial Seed Submitted for CDA trials for % THC verification YES     NO       DATE__________
Trial Fee of $1500 received______________

I, the applicant do affirm the information provided in this industrial hemp cultivar application for entry into the Colorado Department of Agriculture THC evaluation trial is to the best of my knowledge is complete and accurate. I affirm that the reference seed sample submitted along with the application represents the cultivar described in this application. I accept full responsibility for any statements or claims made in this application.

___________________________________  ________________________
Applicants Signature     Date