

Hemp

Cannabis sativa L. Subsp. sativa

APPLICATION OF GENETIC CERTIFICATION STANDARDS

1. The general requirements for seed certification found in Section I through IV of the Genetic and Crop Standards apply to all crops, and together with the following specific standards, constitute the certified hemp standards.
2. The Genetic Standards are modified as follows:
 - A. All production of hemp crops is subject to license application approval that may be required by regulatory authorities.
 - B. Only varieties of hemp approved by regulatory authorities are eligible for certification.
 - C. The allowable area of a hemp research area or production field may be determined by state or local agencies.
 - D. Growers may be required by seed certifying agencies to obtain additional tests and submit results to the seed certifying agency before the seed can be certified. In addition, growers must meet all applicable state and federal requirements.

LAND REQUIREMENTS

1. Hemp crops for foundation and registered classes must not be grown on land which in any of the preceding 3 years produced a crop of hemp.
2. Hemp crops for certified classes must not be grown on land which:
 - A. In the preceding year produced a certified crop of the same variety.
 - B. In either of the preceding 2 years produced a non-certified crop of hemp or a different variety of hemp.

FIELD STANDARDS

1. Crop Inspection

Fields must be inspected at a stage of growth when varietal purity is best determined. Crops not inspected at the proper stage for best determining varietal purity may be cause for declining certified status.

- i. Monoecious type hemp and unisexual hybrids require two inspections. First inspection for all classes of monoecious types must be made just before or at early flowering stage. Dioecious type hemp requires one inspection for registered and certified production. First inspection for all classes of dioecious types must be made after flowering when male plants are beginning to senesce. The second inspection for monoecious type hemp, unisexual hybrids and Foundation dioecious hemp must be made during seed development.
- ii. Isolation areas will be inspected for volunteer hemp plants on each inspection.

2. Weeds

The presence of Broomrape (*Drabanche* spp.) in hemp crops is cause for rejection of certified status.

3. Isolation

- A. The area, density, stage of maturity and location of any contaminating pollen source is an important factor in cross pollination, and therefore must be noted on the seed crop inspection report for consideration in determining certification status. There shall not be any *Cannabis sativa L.* plants within 330 feet of the crop and not more than 4 plants/acre beyond 330 feet within the isolation requirement.
- B. The required isolation must be present prior to flowering and crop inspection.

Table 63

Minimum Isolation Distances Required Between Inspected Hemp and Other Crops		
<i>Inspected Crop</i>	<i>Other Crops</i>	<i>Isolation Distance Required (feet)</i>
Dioecious type – Foundation	Different varieties of hemp Non-certified crop of hemp	15,750
	Lower certified class seed crop of same variety	6,460
	Same class of certified seed crop of same variety	10
Dioecious type – Registered	Different varieties of hemp Non-certified crop of hemp	15,750
	Seed crop of same variety that meets certified standards for varietal purity	5,250
	Seed crop of same variety that meets registered standards for varietal purity	3
Dioecious type – Certified	Different varieties of hemp Non-certified hemp	2,630
	Planted with certified seed of the same variety that meets certified standards for varietal purity	660
	Seed crop of same variety that meets certified standards for varietal purity	3
Monoecious type – Foundation	Dioecious variety of hemp Non-certified crop of hemp	15,750
	Other monoecious varieties Lower certified class seed crop of same variety	9,690
	Same class of certified seed of same variety	16
Monoecious type – Registered	Dioecious variety of hemp Non-certified crop of hemp	15,750
	Different varieties of the same type of hemp (monoecious or female hybrid)	6,460
	Seed crop of same variety that meets certified standards for varietal purity	3,230
	Seed crop of same variety that meets registered standards for varietal purity	3
Monoecious type – Certified	Dioecious variety of hemp Non-certified crop of hemp	3,230
	Different varieties of the same type of hemp (monoecious or female hybrid)	660
	Planted with certified seed of the same variety that meets certified standards for varietal purity	
	Seed crop of same variety that meets certified standards for varietal purity	3

4. Impurity Standards

A.	Impurities should be removed prior to crop inspection.
B.	Any combination of impurities may be reason for declining certified status.
C.	Table 60 indicates the maximum number of impurities permitted by AOSCA in approximately 10,000 plants of the inspected crop. The inspector makes at least 6 counts (10,000 plants each) or the equivalent to determine the number of impurities. The resulting average of these counts must not exceed the maximum impurity standards in Table 60

Table 64

Maximum Impurity Standards per 10,000 plants in Hemp Seed Crops						
Plot Crop	Dioecious			Monoecious		
	Foundation	Registered	Certified	Foundation	Registered	Certified
Maximum Number of Dioecious Male Plants Shedding Pollen	–	–	–	1	2	100
Maximum Number of Off-Types or Other Varieties	3	10	20	3	10	20

SEED STANDARDS

Table 65

Factor	Standards for Each Class		
	Foundation	Registered	Certified
Pure seed (minimum)	98.00%	98.00%	98.00%
Inert matter (maximum) ¹	2.00%	2.00%	2.00%
Weed seeds (maximum)	0.10%	0.10%	0.10%
Total other crop seeds (maximum)	0.01%	0.03%	0.08%
Other varieties (maximum)	0.01%	0.05%	0.10%
Other kinds (maximum) ²	0.01%	0.03%	0.07%
Germination (minimum) ³	80.00%	80.00%	80.00%

¹ Inert matter shall not include more than 0.5 per cent of material other than seed fragments of the variety under consideration.

² Other kinds shall not exceed 2 per lb. (454 grams) for Foundation; 6 for Registered; 10 for Certified.

³ Exclusive of dormancy, firm or hard seed, or any other reference to viability.

Guidelines for the Production of Certified Hemp Seed

1. Definitions

A. Hemp (*Cannabis sativa* L. subsp. *sativa*.) includes varieties of these kinds:

- i. Dioecious type: with male and female flowers on separate plants.
- ii. Monoecious type: with male and female flowers on the same plant.
- iii. (Unisexual Female) Hybrids: with sterile male and fertile female flowers on the same plant.

B. Approved Cultivar - any variety designated as eligible for production by federal or local regulatory authorities

2. Hemp means the plant species *Cannabis sativa* L. and any part of the plant whether growing or not, containing a delta-9 tetrahydrocannabinol (THC) concentration of no more than three-tenths of one percent (0.30%) on a dry weight basis. Under State and Federal law, total THC must be measured through the process of post-decarboxylation or similarly reliable analytical method where the total THC concentration level reported accounts for conversion of delta-9 tetrahydrocannabinolic acid (THCA) into THC.

Although traditionally a crop with a Dioecious plant type, many monoecious varieties of hemp (*Cannabis sativa* L. subsp. *sativa*) have been developed. Hemp is sexually polymorphic and often produces many different ratios of intersexual plant types that can increase roguing requirements. Variety descriptions normally define these ratios.

3. Foundation Seed Production

A. Any means of processing or conditioning of seed from a Foundation production area which may contaminate the varietal purity of the seed is prohibited.

B. Area of Foundation Fields

- i. When circumstances do not permit proper maintenance of the entire field, it is recommended that the area be reduced by destroying part of the field or by isolating a part to meet the requirements of a lower status of certified seed. The remainder of the field must meet the requirements for Foundation field production.
- ii. The area of a foundation field includes the “walkways” provided within the field to facilitate effective roguing.

4. Recommended Production Procedures

A. Field Planting

- i. It is the grower’s responsibility to ensure that fields are inspected by an authorized inspector at least once prior to swathing or harvesting, except in the case of foundation, registered, and certified monoecious types and unisexual hybrids and foundation dioecious types, in which 2 inspections are required.
- ii. A field that is cut, swathed, or harvested prior to crop inspection is not eligible for certification.
 - a. Fields should be planted to facilitate inspection, roguing and harvesting.
 - b. Fields should be planted to facilitate inspection, roguing and harvesting.
 - c. Regulations for land requirements are minimum standards and caution is necessary in choosing land, as volunteer growth from previous crops may vary according to local conditions.

- d. The regulations for isolation are minimum standards. It is always to the grower's advantage to provide more isolation than required. When planting foundation fields, specific requirements may influence the location and size of the field. It is a safeguard if adjacent crops are the same variety as the field and are inspected for certified status.

B. Roguing

- i. The field must be thoroughly and intensively rogued many times throughout the crop season.
- ii. Off-type male flowers must be removed before the receptive stage of female flowers in the inspected crop.
- iii. The numbers and kinds of plants removed should be recorded and described on the appropriate forms.
- iv. All male flowers rogued from the crop must be removed from the production area and burial is recommended.
- v. Regrowth of rogued flowers or plants must be prevented.

C. Harvesting, Cleaning and Storing

- i. A seed grower should have access to the necessary equipment for harvesting and cleaning the seed from the field in such a manner as to ensure that the varietal purity of the seed is maintained.
- ii. The seed should be stored, in compliance with federal or local regulations, in a clean, cool, dry area.
- iii. The seed containers should be labelled for identification.
- iv. It is recommended that not more than one variety of Hemp be grown under the management of one grower.

Feminized Hemp Seed (FHS)

Cannabis Sativa L. Subsp. Sativa

APPLICATION OF GENETIC CERTIFICATION STANDARDS

1. The general requirements for seed certification found in Section I through IV of the Genetic and Crop Standards apply to all crops, and together with the following specific standards, constitute the certified feminized hemp seed standards.
2. The Genetic Standards are modified as follows:
 - A. To be eligible for seed certification under this standard, hemp varieties must have received favorable action by one or more of the following processes recognized by AOSCA, including:
 - i. AOSCA Variety Review Board; or
 - ii. Plant Variety Protection office or Breeder Rights statements; or
 - iii. Any individual AOSCA vested member agency; or
 - iv. Acceptance for certification under the OECD seed schemes.
 - B. Designation of Classes of Seed
 - i. Only the certified class is recognized in the production of feminized hemp seed. The foundation class is allowed for the purpose of variety maintenance.
 - ii. A feminized seed variety to be certified must be produced from seed or clonal stocks approved by the official certifying agency. These seed and clonal stocks shall consist of female lines and chemically assisted pollen shedding female lines of any class of certified seed or clones.
 - C. Growers may be required by seed certifying agencies to obtain additional tests and submit results to the seed certifying agency before the seed can be certified. In addition, growers must meet all applicable state and federal requirements.

DEFINITIONS

1. Hemp - defined by the U.S. Domestic Hemp Production Program as the plant species *Cannabis sativa* L. and any part of that plant, including the seeds thereof and all derivatives, extracts, cannabinoids, isomers, acids, salts, and salts of isomers, whether growing or not, with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent on a dry weight basis or as otherwise defined by federal law.
 - A. Common terms:
 - i. Dioecious type - with male and female flowers on separate plants.
 - ii. Monoecious type - with male and female flowers on the same plant.
 - iii. Reversed female - female plants that are induced to produce pollen in replacement of true male plants
 - iv. Hermaphroditic plants - plants exhibiting male and female flowers, not true females
 - v. Feminized hemp seed (FHS) - the progeny of a dioecious female plant that has been pollinated with pollen derived from the same or another dioecious female plant that has been induced to produce pollen. It is a true female plant with xx chromosomes
 - vi. Pollen parent - a reversed female plant from the female line or another reversed female line to create a hybrid
 - viii. Seed parent - female plants used to produce feminized hemp seed

- ix. Sporting male - is a female plant that produces sterile male flowers.
- x. Variety - a subdivision of a kind that is distinct, uniform, and stable; "distinct" in the sense that the variety can be differentiated by one or more identifiable morphological, physiological, or other characteristics from all other varieties of public knowledge; "uniform" in the sense that variations in essential and distinctive characteristics are describable; and "stable" in the sense that the variety will remain unchanged in its essential and distinctive characteristics and its uniformity when reproduced or reconstituted as required by the different categories of varieties.
- xi. Volunteer plant - a hemp plant that was not intentionally planted and is the result from a previous crop.
- xii. Approved cultivar - any variety designated as eligible for production by federal or local regulatory authorities.
- xiii. Thc - delta-nine ($\Delta 9$) tetrahydrocannabinol, which is the component of hemp regulated by federal or local regulatory authorities.

GROWTH FACILITY AND LAND REQUIREMENTS

1. Growth facility must only contain certified hemp production. Multiple FHS varieties may be present but no other hemp plants are allowed except for pollen parent plants that are the pollen source.
2. Growth facility must be free of all plants for a minimum of six weeks prior to receiving plants at the beginning of the crop year or production season unless the previous crop was the same variety.
3. If sanitation is used to reduce the hemp free period, a sanitation plan must be submitted to the certifying agency. Pollen sanitation is not required if the entire greenhouse facility produces only one pollen source and other female lines are continually rogued to prevent contaminating pollen sources.
4. Certified feminized hemp seed crops must not be grown on land which:
 - A. In either of the preceding two years produced a non-certified crop of hemp or a different variety of hemp.
 - B. In the preceding year produced a certified crop of a different variety.
5. Weeds
 - A. The presence of Broomrape (*Orobanche spp.*) in hemp crops is cause for rejection.
 - B. Excessive weeds obscuring field inspection shall be grounds for rejection.

GROWTH FACILITY AND FIELD STANDARDS

1. Crop Inspection
 - A. It is the grower's responsibility to ensure that growth facility and field inspections are conducted by the authorized inspector at least twice prior to swathing or harvesting.
 - B. A growth facility or field that is cut, swathed or harvested prior to crop inspection is not eligible for certification.
 - C. Inspections of pollen parent plants and seed parent plants must be at a stage of growth when varietal purity is best determined. Crops not inspected at the proper stage for best determining varietal purity may be cause for rejection. A minimum of two inspections are required.
 - i. First inspection for pollen parent and seed parent plants must be made just before or at early flowering. The pollen parent must be inspected prior to pollen collection or dispersal.
 - ii. Second inspection for pollen parent and seed parent types must be completed after pollen shed and seed fill.
 - iii. Isolation areas will be inspected for any volunteer hemp plants on each inspection.

2. Specific

For the production of FHS varieties via pollen shedding by the chemically reversed female plants conducted by the authorized inspector at least twice prior to swathing or harvesting.

- i. Detailed records shall be created and maintained on the pollen parent, such as the chemical application dates, concentration, and the pollen collection date.
- ii. Pollen storage containers (if used) must be marked with lot number and source.
- iii. Chemically reversed female plants (pollen parent) must be removed and destroyed after pollen collection is complete.
- iv. Male, sporting male, and hermaphroditic plants must be removed from the growth facility or field and a record of roguing activities must be maintained.

3. Isolation

- A. Certified feminized hemp seed fields must be isolated from all other contaminating pollen sources by the distances provided in Table 62. Roguing to eliminate all possible contaminating pollen must be accomplished prior to visible flower formation.
- B. Greenhouse production of Certified feminized seed is allowed if mechanical isolation of pollen sources is provided. Additional greenhouse requirements include:
 - i. Method of pollen exclusion must be documented and submitted to the certifying agency.
 - ii. Each greenhouse facility is limited to one variety or multiple varieties when one pollen parent is utilized for all varieties
 - iii. Each variety must be clearly labeled and easily identifiable from one another.
- C. Off season greenhouse production when outside pollen sources are not alive may reduce the isolation requirement.

Table 66

Minimum Isolation Distances Required Between Inspected Hemp and Other Crops

<i>Inspected Crop</i>	<i>Other Hemp Crops</i>	<i>Isolation Distance Required (feet)</i>
Feminized Hemp Seed	Variety of hemp, or other contaminating pollen source that has pollen shedders present, this includes other greenhouse complexes	15,748
	Non-certified crop of hemp	
	Different varieties of the same type of hemp with no male shedders present in field that is not for seed production.	
	Planted with certified seed of the same variety that meets certified standards for varietal purity and no male shedders present in field	
	Certified seed crop of the same variety that meets certified standards for varietal purity	3

D. Impurity Standards

- i. Impurities should be removed prior to crop inspection.
- ii. Any combination of impurities may be reason for declining certified status.
- iii. Table 63 indicates the maximum number of impurities permitted by AOSCA in approximately 10,000 plants of the inspected crop. The inspector makes at least 6 counts of a total of at least 10,000 plants to determine the number of impurities. The resulting average of these counts must not exceed the maximum impurity standards in Table 63.

Table 67

<i>Inspected Crop</i>	Maximum Impurity Standards per 10,000 plants in Hemp Seed Crops	
	Maximum Number of Plants Shedding Pollen	Maximum Number of Off-Types or Other Varieties
Feminized Hemp Seed	0	20

SEED STANDARDS

Table 68

<i>Factor</i>	Standards for Each Class	
	Foundation	Certified
Pure seed (minimum)	98.00%	98.00%
Inert matter (maximum)¹	2.00%	2.00%
Weed seeds (maximum)	0.10%	0.10%
Total other crop seeds (maximum)	0.01%	0.08%
Other varieties (maximum)	0.005%	0.05%
Other kinds (maximum) ²	0.01%	0.07%
Germination (minimum)	80.00%	80.00%
Feminized Seed³	99.00%	99.00%

¹ Inert matter shall not include more than 0.5 percent of material other than seed fragments of the variety under consideration.

² Other kinds shall not exceed 2 per lb. (454 grams) for Foundation; 10 for Certified.

³ Determined by Variety Verification Trial or approved molecular testing

Guidelines for the Production of Certified Hemp Seed

1. Certified Seed Production

- A. Although traditionally a crop with a dioecious plant type, many monoecious varieties of hemp (*Cannabis sativa* L. *subsp. sativa*) have been developed. Hemp is sexually polymorphic and often produces many different ratios of intersexual plant types that can increase roguing requirements. Variety descriptions normally define these ratios.
- B. Quality Assurance (QA) Program standards will be equal to or exceed the AOSCA standards for certification for varietal purity of the certified class of seed, with the following exceptions:
 - i. Varietal eligibility requirements
 - ii. Seedstock eligibility
- C. Any means of processing or conditioning of seed from a production area which may contaminate the varietal purity of the seed is prohibited.
- D. Area of Fields
 - i. When unforeseen circumstances do not permit proper maintenance of the entire field, it is recommended that the area be reduced by destroying part of the field or by isolating a part to meet the requirements. The remainder of the field must meet the requirements for certified field production.
 - ii. The area of a field includes the “walkways” provided within the field to facilitate effective roguing and inspecting.

2. Recommended Production Procedures

- A. Field Planting
 - i. Fields should be planted to facilitate inspection, roguing and harvesting.
 - ii. Fields should be planted in areas easily accessible for frequent maintenance and to provide the maximum protection from outside sources of contamination, such as roadways and building sites.
 - iii. Regulations for land requirements are minimum standards and caution is necessary in choosing land, as volunteer growth from previous crops may vary according to local conditions.
 - iv. The regulations for isolation are minimum standards. It is always to the grower's advantage to provide more isolation than required. When planting fields, specific requirements may influence the location and size of the field. It is a safeguard if adjacent crops are the same variety as the field and are inspected for certified status.
- B. Roguing
 - i. The field must be thoroughly and intensively rogued many times throughout the crop season.
 - ii. Off-type male flowers must be removed before the receptive stage of female flowers in the inspected crop.
 - iii. The numbers and kinds of plants removed should be recorded and described on the appropriate forms.
 - iv. All male flowers rogued from the crop must be removed from the production area and burial is recommended. The male flowers should be bagged during removal to prevent unwanted pollen transfer during removal.
 - v. Regrowth of rogued flowers or plants must be prevented.

C. Harvesting, Cleaning and Storing

- i. A seed grower should have access to the necessary equipment for harvesting and cleaning the seed from the field in such a manner as to ensure that the varietal purity of the seed is maintained.
- ii. The seed should be stored, in compliance with federal or local regulations, in a clean, cool, dry area.
- iii. The seed containers should be labelled for identification.

D. It is recommended that not more than one variety of Hemp be grown under the management of one grower or one distinct facility.

Vegetatively Propagated Hemp

Cannabis sativa L. subsp. *sativa*

APPLICATION OF GENETIC CERTIFICATION STANDARDS

The general requirements for seed certification found in Section I through IV of the Genetic and Crop

1. Standards apply to all crops, and together with the following specific standards, constitute the certified vegetatively propagated hemp standards.

2. Definitions

- A. Clones are asexually propagated progeny genetically identical to the stock plant.
- B. Structure or field is the production area enclosed by natural borders such as ditches, tree lines, buildings, roads, or an enclosed growth facility.
- C. Micropropagation is the science of plant multiplication in-vitro.
- D. Cuttings are portions of stems containing leaves which are rooted to produce clones.

3. The general planting stock certification standards are further defined to apply specifically to hemp planting stocks. Classes and sources of certified planting stocks are:

- A. Breeder Plant Stock (Source Seed) - propagation material identified by the breeder, or the breeder's representative. The breeder must also declare and document the way parent lines are selected and how the Plant Stock is maintained.
- B. Mother Plant - a plant produced from a breeder plant stock.
- C. Certified plants are plants produced from mother plants. Certified plants may be used to produce certified stock in the growth facility or d1 daughter stock. Certified plants are propagated as follows:
 - i. Mother plants may be cut repeatedly to produce D1 daughter plants. D1 daughter plants are produced by cuttings from mother plants.
 - ii. D1 daughter plants may be cut repeatedly to produce D2 daughter plants. D2 daughter plants are produced by cuttings from D1 daughter plants.
 - iii. D2 daughter plants may be cut repeatedly to produce D3 daughter plants. D3 daughter plants are produced by cuttings from D2 daughter plants.
- D. The grower shall retain documentation of the parent being used to generate clones.
- E. All grower records and grower developed Best Management Practices (BMPs) related to the production of hemp clones shall be available for inspection by the certifying agency.

MOTHER PLANT PRODUCTION

1. All Mother plants are to be inspected by Certifying Agency periodically.
2. Inspection of structures and fields will conform to documented and verifiable production standards listed below.

GROWTH FACILITIES AND FIELD PRODUCTION

1. Production requirements for growth facility production

- A. Facility is to be free of visually detectable diseases, insects, and other pests.
- B. Hemp clones are to be handled in such a manner as to prevent co-mingling of varieties or types.
- C. Growth Facility Isolation Standards

- i. When two or more varieties are being grown in the same greenhouse or traditional outdoor plant bed (field), there must be an 18" unplanted area between the varieties. The production area, flats and/or containers for each variety must be clearly labeled in a manner that prevents mixing or misidentification.
- ii. Growers must handle transplants throughout the growing, harvesting, and transplant sales in a manner that prevents the accidental or mechanical mixture of containers of different varieties.

2. Production Requirements for Open Field Production

A. Facility is to be free of visually detectable diseases, insects, and other pests.

- i. Field Eligibility - Crops should not be grown on land where remnant seed from a previous crop may germinate and produce volunteers that may cause contamination. Crops for Mother Plants must not be grown on land that produced another crop of hemp within the previous five years. Crops for Certified class must not be grown on land that had a hemp crop in the preceding three years.
- ii. Field Isolation - Ten feet or an appropriate barrier to alleviate accidental mixing of plants.

3. Inspections

A. Grower Responsibility

- i. Maintain certification standards

B. Certifying Agency Responsibility

- i. The Agency will inspect growth facilities and fields and to audit compliance with the grower developed BMPs and their effectiveness.
- ii. Mother plants are inspected within seven days before first cutting of daughters for certification.
- iii. Daughter plants are inspected within seven days after planting.

C. General Requirements

Plant increase standards are described in Section 3C

GENERAL INSPECTION STANDARDS OF PLANTS

1. Plants

A. Apparently free of diseases, insects, and other pests.

B. True-to-type characteristics refer to hemp transplant standards for minimum requirements of production of rooted plant materials from parent or micropropagation stock.

Hemp Transplants

Cannabis sativa L. Subsp. *Sativa*

APPLICATION OF GENERAL CERTIFICATION STANDARDS

1. The General Seed Certification Standards, as adopted by the association are basic and together with the following specific standards constitute the standards for certification of hemp transplants as seedlings or plugs where Section V is further clarified as follows:

- A. All certified transplants must be grown from a class of certified seed or certified clones. Proof of seed/clone eligibility shall be established by providing either a certified tag/label with an invoice showing the lot number and pounds received or documentation of clone propagation under clone standards found in the Seed Certification Handbook.
- B. Seed coated or pelleted by non-approved conditioners will not be eligible for certification.
- C. All containers must be labeled in a manner that maintains the source, identity and certification eligibility of the transplants. All containers offered for sale must be identified by the official seed certification tag/label. The tag/label must be affixed (stapled, for example) to trays so tags/labels are not misplaced.

2. Definitions

- A. Transplants: plants produced vegetatively from cuttings (before flowering).
- B. Clones: asexually propagated progeny genetically identical to the stock plant.
- C. Seedlings: plants grown from seeds.
- D. Seed: a flowering plant's unit of reproduction and capable of developing into another such plant.
- E. Plugs: young plants raised in small, individual cells, intended for transplanting.

GROWTH FACILITIES AND FIELD PRODUCTION

1. Traditional outdoor plant beds (fields) will be inspected at least two times for phenotypic purity, isolation, general physical condition, and appearance of plants.
2. Transplants produced in a growth facility shall be inspected at least two times for varietal labeling, phenotypic purity, isolation, general physical condition, and appearance of plants.
3. Maximum off-type or other variety shall not exceed 0.20%, or 20 in 10,000. Non-conforming plants must be removed and destroyed.
4. At the time of the final inspection, the number of transplants produced must be verified by agency personnel.
5. Transplants may be rejected for non-compliance with these standards.
6. Inspectors may also reject transplants due to unsatisfactory appearance such as any plants that are diseased, insect infestation, or otherwise stressed or any condition which prevents thorough inspection.
7. Unlabeled or inadequately labeled transplants will be ineligible for certification.
8. At the final inspection, transplants may be collected for post-control grow outs or other identification verification tests if required by agency.

9. Certifying agency personnel may conduct additional inspections as necessary to ensure certification standards are met.

FIELD ELIGIBILITY AND PLANT BED SOIL MIX REQUIREMENTS FOR GROWTH FACILITIES

1. Hemp transplants must not be grown on traditional outdoor plant beds (fields) which:
 - A. In either of the preceding two years produced a non-certified crop of hemp or a different variety of hemp.
 - B. In the preceding year produced a certified crop of a different variety
2. Hemp transplant growers using growth facilities must use a SOP (Standard Operating Procedure) and document that the facility is free of any plant material from a previous crop.
3. The soil mix for growth facility production of transplants must be new, soil-less media, or sanitized soil mixes.
4. The presence of Broomrape (*Orobanche spp.*) in hemp crops is cause for rejection of certified status.

GROWTH FACILITY ISOLATION STANDARDS

1. When two or more varieties are being grown in the same greenhouse or traditional outdoor plant bed (field), there must be an adequate unplanted area between the varieties, which must be clearly marked. The production area, flats and/or containers for each variety must be clearly labeled in a manner that prevents mixing or misidentification.
2. Growers must handle transplants throughout the growing, harvesting, and transplant sales in a manner that prevents the accidental or mechanical mixture of containers of different varieties.

LABELING STANDARDS

All certified transplants offered for sale must be labeled with official certification tags or labels. Each container of transplants must have an agency certification label firmly attached to be sold as certified transplants. Failure to properly label transplants at the time of sale will be cause for revocation of the certification status and may become ineligible for sale as certified transplants.