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**U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705**

**OBJECTIVE DESCRIPTION OF VARIETY
Red Clover (*Trifolium pretense* including *T.p. var. sativum*)**

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
ADDRESS (Street and No. or RD No., City, State, Zip Code and Country)		FOR OFFICIAL USE ONLY
		PVPO NUMBER

PLEASE READ ALL INSTRUCTIONS CAREFULLY:

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (i.e. or) when the number is either 99 or less or 9 or less. Characteristics described, including numerical measurements, should represent those which are typical for the variety. Measured data should be for spaced plants. Any recognized color fan, e.g. Royal Horticultural Color Chart, may be used to determine plant color; designate system used: _____ . Give location of test area _____ . Ranges of values are valuable and may be included with additional description elsewhere in the application.

Note: For single plant data a minimum of 100 plants is suggested.

1. TYPE:

1 = Double Cut (medium) 2 = Single Cut (mammoth) 3 = Other (Specify) _____

2. PLOIDY:

1 = Diploid 2 = Tetraploid 3 = Other (Specify) _____

3. PRODUCTIVE PERSISTENCE: (Usual duration of planting)

1 = Annual 2 = Biennial 3 = Short Lived Perennial (3 -4 Years)

4. ADAPTATION: (e.g. = northcentral and southcentral

1 = Northeast 2 = Northcentral 3 = Southcentral 4 = Southeast 5 = West 6 = Other (Specify) _____

5. MATURITY:

% Plants flowering in seedling year

Beginning of spring growth:

<input type="text" value=""/> <input type="text" value=""/> Days Earlier Than	<input type="text" value=""/> Standard Variety
<input type="text" value=""/> <input type="text" value=""/> Days Later Than	<input type="text" value=""/> Standard Variety

Time of flowering (50% of plants in bloom): (from spring growth in non-seeding year)

<input type="text" value=""/> <input type="text" value=""/> Days Earlier Than	<input type="text" value=""/> Standard Variety
<input type="text" value=""/> <input type="text" value=""/> Days Later Than	<input type="text" value=""/> Standard Variety

6. PLANT HEIGHT: (From soil level to top of flowering head at 50% flowering)

cm Tall cm Shorter Than Standard Variety
 cm Taller Than Standard Variety

7. FLOWERING STEM: (from first noncontracted internode, longer than 0.5 cm., to tip if flowering head)

No. Flowering Stems per Crown
 No. Internodes
 cm. Length of Stem

Hairiness: Give percentage of plants with each type of surface (Total = 100%)

% Hairs Projecting Upward
 % Hairs Projecting Downward or at Right Angles
 % Glabrous (Fewer than 5 hairs/1 cm. path along central internodes)

Habit: Give percentage of plants with each type of habit. Stem habit should be determined by the angle of lowest stems to the horizontal (soil level) at 50% flowering.

% Prostrate (0 - 30°) % Semi-Prostrate (30 - 45°) % Semi-Erect (45 - 60°) % Erect (60 - 90°)

8. LEAF: (Central leaflet of 3rd node below flowering head)

mm Width mm Narrower Than Standard Variety
 mm Length mm Wider Than Standard Variety
 mm Longer Than mm Shorter Than Standard Variety
 mm Longer Than mm Longer Than Standard Variety

Color:

1 = Light Green (Altaswede) 2 = Medium Green 3 = Dark Green (Hungaropoli) 4 = Blue Green

Leaf Marking (at 50% flowering: Note: Categories below allow for increasingly detailed description of the same data. The diagram illustrates the terms: 1 = Apical 2A = Full 2B = Extended 2C = Delta 2D = Incomplete 3 = Basal)

Presence of mark: Of total plants, give percentage of marked and unmarked plants (Total = 100%)

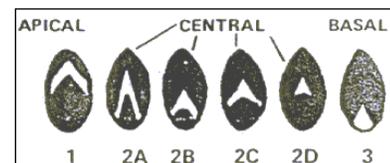
% Absent % Marked

Position of mark: Of total plants, give percentage with leaf mark in each position (Total = % marked above)

% Apical % Central % Basal

Shape of mark: Of total plants, give percentage with central leaf marks having each shape (Total = % marked above)

% Full % Extended % Delta % Incomplete

**9. FLOWER COLOR:** (Determine color on freshly opened florets) Give percentage of plants with each color (Total = 100%).

Colors are referenced to the Munsell Color System.

% White % Light Pink (5RP 8/4)
 % Medium Pink (5RP 7/6) % Dark Pink
 % Red (5RP 5/10) % Other _____

10. SEED COLOR: Maximum color development in unstored, mature seed (at beginning of calyx browning). Give percentage of plants with each seed color (Total = 100%).

% Yellow

% Yellow with some Purple

% Purple

% Purple with some Yellow

% Other (Specify) _____ (attach explanation)

11. DISEASE AND PEST RESISTANCE: (0 = Not Tested 1 = Susceptible 2 = Resistant) If variety is claimed to be resistant or to show intermediate reaction, substantiating test scores should be attached clearly identifying disease, application variety, check varieties, date and location of test and range and direction of test scores.

A. Diseases:

- Crown Rot (*Sclerotinia trifoliorum*)
- Northern Anthracnose (*Kabatella caulivora*)
- Southern Anthracnose (*Colletotrichum trifolii*)
- Target Spot (*Stemphylium sarcinaeformae*)
- Pepper Spot (*Leptosphaeralia trifolii*)
- Red Clover Vein Mosaic Virus
- Nematode (Specify) _____

- Root Rot (*Fusarium spp.*)
- Summer Black Stem (*Cercospora zebrina*)
- Black Stem (*Phoma trifolii*)
- Powdery Mildew (*Erysiphe polygoni*)
- Black Patch (*Rhizoctonia leguminicola*)
- Bean Yellow Mosaic Virus
- Other (Specify) _____

B. Insects

- Clover Root Borer (*Hylastinus obsurus*)
- Sweetclover Weevil (*Sitona cylindricollis*)
- Lesser Clover Leaf Weevil (*Hypera nigrostris*)
- Yellow Clover Aphid (*Therioaphis trifolii*)
- Clover Seed Midge (*Dasineura leguminicola*)
- Clover Leafhopper (*Aceratagallia sanguinolenta*)

- Clover Root Curculio (*Satona hispidula*)
- Clover Seed Chalcid (*Bruchophagus platyptera*)
- Potato Leafhopper (*Empoasca fabae*)
- Meadow spittlebug (*Philaenus spumarius*)
- Pea Aphid (*Acyrthosiphon pisum*)
- Other (Specify) _____

12. Indicate the variety most closely resembling the application variety for the following:

CHARACTER	VARIETY	CHARACTER	VARIETY
Leaflet shape		Seed color	
Cutting recovery		Late season growth	
Winter hardiness		Persistence	

REFERENCES:

Hawkins, R. P. 1953. Investigations on local strains of herbage plant II. Types of red clover and their identification. J. Brit. Grassland Soc. 8, 213-218.
 Williams, R. D. 1927. Red clover investigations, 1919 – 1926. Welsh Plant Breeding Station Bull., Ser. H. No. 7.

COMMENTS: (If additional space is necessary, use reverse side)