| Plant | Chinese milk vetch 391 |  |  | 6015) Primary essential character |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No | Characters | No. of samples | Methods | Rank or measurement unit | Remarks |
| 1 | Plant type | 10 plants, 2 replications | Observation | ```1:Erect 2:Nearly erect 3:Semi-erect 4:Slightly semi-erect 5:Intermediate 6:Slightly semi-prostrate 7:Semi-prostrate 8:Nearly prostrate 9:Prostrate``` | Angle that outer main stems make with the ground |
| 2 | Plant height | $\begin{aligned} & 10 \text { plants, } 2 \\ & \text { replications } \end{aligned}$ | Measurement | cm (round to the 1st decimal place) | Plant length from the ground to the top of plant at the full flowering time |
| 3 | Stem thickness | $\begin{aligned} & 10 \text { plants, } 2 \\ & \text { replications } \end{aligned}$ | Obs.\&Measr. | 1:Extremely slender 2:Very slender 3:Slender 4:Slightly slender 5:Intermediate 6:Slightly thick 7:Thick 8:Very thick 9:Extremely thick | Diameter of stems at the full flowering time |
| 4 | Leaf length | 10 plants, 2 replications | Measurement | cm (round to the 1st decimal place) | Length of the biggest leaf from the base of petiole to the tip of top leaflet at the full flowering time |
| 5 | Leaflet size | 10 plants, 2 replications | Obs.\&Measr. | ```1:Extremely small 2:Very small 3:Small 4:Slightly small 5:Intermediate 6:Slightly large 7:Large 8:Very large 9:Extremely large``` | Extremely small:<=0.4 square meter, small:<=0.8 square meter, intermediate:<=1.2 square meter, large:<=1.6 square meter, extremely large:>=2.0 square meter |
| 6 | First flowering date | $\begin{aligned} & 10 \text { plants, } 2 \\ & \text { replications } \end{aligned}$ | Observation | date | Date when plants began to flower |
| 7 | Flower color | 10 plants, 2 replications | Observation | 1:White 2:Yellowish white 4:Blight red purple 5:Red purple 7:Deep red purple 9:Other | Color of standard and keel petals just after flowering |


| Plant | Chinese milk vetch |  |  | 6015) Primary optional character |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No | Characters | No. of samples | Methods | Rank or measurement unit | Remarks |
| 1 | Stem color | 10 plants, 2 replications | Observation | 1:Green 3:Light red 5:Red brown 7:Dark red purple 9:Other | Degree of anthocyan pigmentation of stems on the sunny side at flowering time |
| 2 | Number of stems | 10 plants, 2 replications | Obs.\&Measr. | ```1:Almost none 2:Extremely few 3:Very few 4:Few 5:Intermediate 6:Some 7:Many 8:Very many 9:Abundant``` | Number of primary branches at the beginning of flowering stage |
| 3 | Flower stalk length | 10 plants, 2 replications | Measurement | mm (integer) | Average length of 2 flower stalks from 2 <br> longest stems |
| 4 | Number of florets per cluster | 10 plants, 2 replications | Obs.\&Measr. | ```1:Almost none 2:Extremely few 3:Very few 4:Few 5:Intermediate 6:Some 7:Many 8:Very many 9:Abundant``` | Number of florets per cluster |
| 5 | Pod color | 10 plants, 2 replications | Observation | 3:Brown 5:Dark brown 7:Black | Color of mature pods |
| 6 | Seed shape | 10 plants, 2 replications | Observation | ```1:Round 2:Round-Oval 3:Oval 4:Oval-Elliptic 5:Elliptic 6:Elliptic-Rhombic 7:Rhombic 9:Other``` | Shape of seeds taken out of mature pods |
| 7 | Weight of 1000 seeds | 10 plants, 2 replications | Measurement | g / 1000 seeds (round to the 2nd decimal place) | Weight of 1000 seeds estimated by sampling 100 seeds from a mixture of 20 plants, with at least 4 replications |


| Plant | Chinese milk vetch |  |  | 6015) Secondary essential character |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No | Characters | No. of samples | Methods | Rank or measurement unit | Remarks |
| 1 | Sclerotinia wilt rot resistance | 10 plants, 2 replications | Observation |  | Resistance to Sclerotinia trifoli orum based on the degree of damage and the ratio of dead plants when the infection became apparent |
| 2 | Overwintering ability | 10 plants, 2 replications | Obs.\&Measr. | 1:Extremely poor 2:Very poor 3:Poor <br> 4:Slightly poor 5:Intermediate 6:Slightly good 7:Good 8:Very good 9:Excellent | ```Overwintering ability estimated from the rate of survival after overwintering. Extremely poor:less than 10%, poor:less than 30%, intermediate:less than 60%, good:up to 80%, excellent:at least 95%``` |
| 3 | Plant vigor in spring | 10 plants, 2 replications | Observation | 1:Extremely poor 2:Very poor 3:Poor <br> 4:Slightly poor 5:Intermediate 6:Slightly <br> good 7:Good 8:Very good 9:Excellent | Plant vigor one month after sprouting in spring |


| Plant | Chinese milk vetch 39 |  |  | 6015) Secondary optional character |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No | Characters | No. of samples | Methods | Rank or measurement unit | Remarks |
| 1 | Disease resistance | 10 plants, 2 replications | Observation | 1:Extremely low 2:Very low 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High 8:Very high 9:Extremely high | Resistance to diseases based on the degree of damage and the ratio of dead plants when the infection became apparent (Note the name of disease) |
| 2 | Insect resistance | 10 plants, 2 replications | Observation | 1:Extremely low 2:Very low 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High 8:Very high 9:Extremely high | Resistance to insects, based on the degree of damage and the ratio of dead plants when the damage became apparent (Note the name of insect) |
| 3 | Spring habit | 10 plants, 2 replications | Observation | 1:Extremely low 2:Very low 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High 8:Very high 9:Extremely high | Ratio of flowering plants when sown in spring |
| 4 | Plant vigor in autumn | 10 plants, 2 replications | Observation | ```1:Extremely poor 2:Very poor 3:Poor 4:Slightly poor 5:Intermediate 6:Slightly good 7:Good 8:Very good 9:Excellent``` | Amount of growth in late fall |


| Plant | Chinese milk vetch |  | 39 (06015) | 6015) Tertiary optional character |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No | Characters | No. of samples | Methods | Rank or measurement unit | Remarks |
| 1 | Dry matter yield | 2 plots | Measurement | kg/a (integer) | Dry matter yield calculated by fresh yield x dry matter ratio/100 |
| 2 | Dry matter ratio | 2 plots | Measurement | \% (round to the 1st decimal place) | Ratio of dry matter by sampling 300 g of fresh weight and drying at 70 centi degrees for 48 hours |
| 3 | Green yield | 2 plots | Measurement | kg/a (integer) | Fresh yield estimated from fresh weight harvested from an area more than 2 square meters |
| 4 | Dry matter digestibility | $\begin{aligned} & 2 \text { plots, } 3 \\ & \text { replications } \end{aligned}$ | Measurement | \% (round to the 1st decimal place) | Ratio of digestible dry matter measured by in vivo test or in vitro enzyme method |
| 5 | Crude protein content | $\begin{aligned} & 2 \text { plots, } 3 \\ & \text { replications } \end{aligned}$ | Measurement | \% (round to the 1st decimal place) | Ratio of crude protein content on a dry matter base analyzed by Kjeldahl method or Near Infrared Analyzer |
| 6 | Acid detergent fiber content (ADF) | $\begin{aligned} & 2 \text { plots, } 3 \\ & \text { replications } \end{aligned}$ | Measurement | \% (round to the 1st decimal place) | Ratio of ADF content on a dry matter base analyzed by acid detergent-acetone washing |
| 7 | Neutral detergent fiber content (NDF) | $\begin{aligned} & 2 \text { plots, } 3 \\ & \text { replications } \end{aligned}$ | Measurement | \% (round to the 1st decimal place) | Ratio of NDF content on a dry matter base analyzed by neutral detergent-acetone washing |
| 8 | Acid detergent lignin content (ADL) | $\begin{aligned} & 2 \text { plots, } 3 \\ & \text { replications } \end{aligned}$ | Measurement | \% (round to the 1st decimal place) | Ratio of ADL content on a dry matter base analyzed by acid detergent-acetone washing |
| 9 | Mono-and <br> oligosaccharide content | $\begin{aligned} & 2 \text { plots, } 3 \\ & \text { replications } \end{aligned}$ | Measurement | \% (round to the 1st decimal place) | Mono-and oligosaccharide content on a dry matter base analyzed by thin layer chromatography after ethanol extraction |
| 10 | Seed productivity | $\begin{aligned} & 2 \text { plots, } 2 \\ & \text { replications } \end{aligned}$ | Measurement | $\begin{aligned} & \text { g/square meter (round to the 1st decimal } \\ & \text { place) } \end{aligned}$ | Yield of pure seeds per square meter |
| 11 | Seed weight per flower head | $\begin{aligned} & 2 \text { plots, } 2 \\ & \text { replications } \end{aligned}$ | Measurement | mg/flower head (integer) | Weight of pure seeds per flower head, by sampling 20 mature flower heads |


| Plant |  | Chinese milk vetch |  | 39 (06015) |  | Tertiary optional character |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No |  | Characters | No. of samples | Methods |  | Rank or measurement unit | Remarks |
| 12 | Seed f | fertility | 2 plots, 2 replications | Measurement | \% (round | to the 1st decimal place) | Ratio of pure seeds estimated by sampling seeds of 20 mature flower heads |

