| Plant | Broad-leaved mustard 76 |  |  | Primary essential character |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No | Characters | No. of samples | Methods | Rank or measurement unit | Remarks |
| 1 | Plant habit | 10 plants | Observation | 3:Erect 4:Semi-erect 5:Intermediate 6:Semiprostrate 7:Prostrate | Posture of a single plant, at harvesting stage |
| 2 | Leaf shape | 10 plants | Observation | 1:Lanceolate 2:Reverse lanceolate 3:Spatulate 4:Ovate 5:Reverse ovate 6:Long ellipsoid 7:Short ellipsoid 8:Circle 9:Broad circle | As outline of leaf blade excluding petiole (desected part is regarded as petiole) |
| 3 | Leaf color | 10 plants | Observation | 1:Light yellow 2:Light yellow green 3:Light green 4:Slightly light green 5:Green 6:Slightly dark green 7:Dark green 8:Very dark green 9:Very dark green nearly black |  |
| 4 | Leaf pigmentation | 10 plants | Observation | ```0:Absent 1:Almost none 2:Very little 3:Little 4:Slightly little 5:Intermediate 6:Much 7:Very much``` | By anthocyanin |
| 5 | Leaf incision | 10 plants | Observation | ```1:Entire 2:Entire-Lobate 3:Lobate 4:Lobate- Cleft 5:Cleft 6:Cleft-Parted 7:Parted 8:Parted-Desect 9:Desect``` |  |
| 6 | Petiole/midrib width | 10 plants | Observation | ```1:Extremely narrow 2:Very narrow 3:Narrow 4:Slightly narrow 5:Intermediate 6:Slightly wide 7:Wide``` | At the widest site |
| 7 | Number of leaves | 10 plants | Observation | ```3:Very few 4:Few 5:Intermediate 6:Many 7:Very many``` | Except tiller type |


| Plant | Broad-leaved mustard |  | 76 (08015) P | 8015) Primary optional character |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No | Characters | No. of samples | Methods | Rank or measurement unit | Remarks |
| 1 | Leaf length | 10 plants | Observation | 3:Short 4:Slightly short 5:Intermediate 6:Slightly long 7:Long | Of the largest leaf |
| 2 | Number of lobes in leaves | 10 plants | Observation | $\begin{aligned} & 0: \text { None 1:Almost none } 2: \text { Very few } 3: \text { Few } \\ & 4: \text { Slightly few } 5: \text { Intermediate } 6: \text { Some } 7: \text { Many } \\ & 8: \text { Very many } 9: \text { Extremely numerous } \end{aligned}$ |  |
| 3 | Width of lobe in leaf | 10 plants | Observation | 3:Narrow 4:Slightly narrow 5:Intermediate 6:Slightly wide 7:Wide |  |
| 4 | Leaf dentation | 10 plants | Observation | ```0:None 1:Almost none 2:Very little 3:Little 4:Slightly little 5:Intermediate 6:Much 7:Very much``` |  |
| 5 | Leaf glossiness | 10 plants | Observation | 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High |  |
| 6 | Leaf wax | 10 plants | Observation | 3:Very little $4:$ Little $5:$ Intermediate $6:$ Much $7:$ Very much |  |
| 7 | Leaf hair | 10 plants | Observation |  |  |
| 8 | Leaf undulation | 10 plants | Observation | $\begin{aligned} & \text { 0:Absent 1:Almost none 2:Very little } \\ & 3: \text { Little 4:Slightly little 5:Intermediate } \\ & 6: \text { Much 7:Very much } \end{aligned}$ |  |
| 9 | Number of leaflets | 10 plants | Observation |  |  |
| 10 | Leaf thickness | 10 plants | Observation | 3:Thin 4:Slightly thin 5:Intermediate 6:Slightly thick 7:Thick |  |
| 11 | Petiole or midrib thickness | 10 plants | Observation | 3:Thin 4:Slightly thin 5:Intermediate 6:Slightly thick 7:Thick | At the largest part, vertical section |
| 12 | Petiole or midrib shape | 10 plants | Observation | 3:Flat 4:Slightly flat 5:Intermediate 6:Slightly round 7:Round |  |
| 13 | Petiole or midrib veins | 10 plants | Observation | 3:Very few 4:Few 5:Intermediate 6:Many 7:Very many |  |


| Plant | Broad-leaved mustard |  |  | Primary optional character |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No | Characters | No. of samples | Methods | Rank or measurement unit | Remarks |
| 14 | Petiole or midrib twisting | 10 plants | Observation | 0:Absent 3:Very slight 4:Slight <br> 5:Intermediate 6:Prominent 7:Very prominent |  |
| 15 | Petiole or midrib color | 10 plants | Observation | 1:White 2:Very pale green 3:Pale green <br> 4:Slightly pale green 5:Green 6:Slightly pale <br> purple 7:Pale purple 8:Purple 9:Dark purple | On abaxial surface |
| 16 | Petiole length | 10 plants | Observation | ```0:Absent 1:Extremely short 2:Very short 3:Short 4:Slightly short 5:Intermediate 6:Slightly long 7:Long``` |  |
| 17 | Petiole overlap | 10 plants | Observation | 3:Very little 4:Little 5:Intermediate 6:Much 7:Very much |  |
| 18 | Width of petiole or midrib base | 10 plants | Observation | 1:Extremely narrow 2 :Very narrow 3 :Narrow 4:Slightly narrow 5:Intermediate 6:Slightly wide 7:Wide |  |
| 19 | Tillering | 10 plants | Observation | 0:No tillers 9:Tillering |  |
| 20 | Enlargement of tap root | 10 plants | Observation | ```0:Absent 1:Extremely small 2:Very small 3:Small 4:Slightly small 5:Intermediate 6:Slightly large 7:Large``` |  |
| 21 | Time of maturity | 10 plants | Observation | 3:Early 4:Slightly early 5:Intermediate 6:Slightly late 7:Late | Quickness of growth |
| 22 | Bolting | 10 plants | Observation | 3:Early 4:Slightly early 5:Intermediate 6:Slightly late 7:Late | By natural occurrence |
| 23 | Heading | 10 plants | Observation | 0:Non-heading 9:Heading |  |


| Plant |  | Broad-leaved mustard |  | 8015) Secondary essential character |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No | Characters | No. of samples | Methods | Rank or measurement unit | Remarks |
| 1 | Clubroot resistance | 30 plants | Observation | 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High | By natural occurrence or artificial inoculation |
| 2 | Soft rot resistance | 30 plants | Observation | 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High | By natural occurrence or artificial inoculation |
| 3 | Virus resistance | 30 plants | Observation | 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High | By natural occurrence or artificial inoculation |


| Plant | Broad-leaved mustard 76 |  |  | 8015) Secondary optional character |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No | Characters | No. of samples | Methods | Rank or measurement unit | Remarks |
| 1 | Downy mildew resistance | 30 plants | Observation | 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High | By natural occurrence or artificial inoculation |
| 2 | Verticillium yellows resistance | 30 plants | Observation | 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High | By natural occurrence or artificial inoculation |
| 3 | Diamondback moth resistance | 30 plants | Observation | 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High | By natural occurrence |
| 4 | Aphid resistance | 30 plants | Observation | 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High | By natural occurrence |
| 5 | Green catapillar <br> resistance | 30 plants | Observation | 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High | By natural occurrence |
| 6 | Cold tolerance | 30 plants | Observation | 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High | Evaluate by the degree of cold injury |
| 7 | Heat tolerance | 30 plants | Observation | 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High | Evaluate by the degree of stunting under high temperature |
| 8 | Adaptability to hot season cropping | 30 plants | Observation | 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High | Evaluate by the feasibility of high quality production in hot season |


| Plant | Broad-leaved mustard |  |  | 015) Tertiary essential character |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No | Characters | No. of samples | Methods | Rank or measurement unit | Remarks |
| 1 | Plant weight | 10 plants | Observation | 3:Light 4:Slightly light 5:Intermediate 6:Slightly heavy 7:Heavy | Per one plant |
| 2 | Pungency | 3 plants | Sensory | ```0:Absent 1:Extremely weak 2:Very weak 3:Weak 4:Slightly weak 5:Intermediate 6:Slightly strong 7:Strong``` | By biting fresh leaves |
| 3 | Quantity of pungent element | 10 plants | Sensory | 3:Little 4:Slightly little 5:Intermediate 6:Slightly much 7:Much | By biting seeds |


| Plant $\quad$ Broad-leaved mustard |  |  |  | 76 (08015) | Tertiary optional character |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No | Characters | No. of samples | Methods |  | Rank or measurement unit | Remarks |
| 1 | Pungency of seed | 10 plants | Sensory | $0: \mathrm{Ab},$ | 3:Weak 4:Slightly weak diate 6:Slightly strong 7:S |  |
| 2 | Suitability to for light pickling | 10 plants | Sensory | $0:$ Unsuitable 9:Suitable |  |  |
| 3 | Taste | 10 plants | Sensory | 3:Bad 4:Slightly bad 5:Intermediate6:Slightly good 7:Good |  |  |

