

| Plant | | Sesame | | 439 | Primary essential character | |
|-------|-------------------------------------|----------------|-------------|-----------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------|
| No | Characters | No. of samples | Methods | Rank or measurement unit | | Remarks |
| 1 | Branching habit | Block | Observation | 0:Much branching 1:Top branching 2:Mid-high branching 3:Basal branching 4:No branching | | |
| 2 | Stem pubescence | Block | Observation | 0:Absent 3:Lobed or sparse 5:Moderately hairy 7:Very hairy | | Stem hair density |
| 3 | Leaf shape | Block | Observation | 1:Entire 4:Parted 7:Ternate | | Leaf shape around 10th leaf |
| 4 | Phyllotaxis | Block | Observation | 3:Alternate 5:Opposite 7:Spiral | | Alternate is 1/2 opening, opposite is decussate, spiral is 2/5 |
| 5 | Corolla color | Block | Observation | 2:White 3:Pinkish white 4:Pink 5:Pale purple 6:Purple 7:Deep purple 8:Very deep purple | | |
| 6 | Number of flowers per leaf axil | Block | Observation | 1:1 2:1-2 3:2 4:2-3 5:3 6:>= 4 | | Four or five flowers type is mixed with three-flowers type |
| 7 | Number of nodes to the first flower | 10 plants | Measurement | (round to the 1st decimal place) | | Number of nodes including cotyledon node on main stem |
| 8 | Internode length | Block | Observation | 3:Short 5:Intermediate 7:Long | | Internode length of middle portion on main stem |
| 9 | Number of carpels per capsule | Block | Observation | 2:Two carpels 3:Two or three carpels, mixed 4:Three carpels 5:Three or four carpels, mixed 6:Four carpels | | When different carpel numbers are seen in a single plant, rank number is 3 or 5 |
| 10 | Seed coat color | Block | Observation | 1:White 2:Yellowish brown 3:Yellow 4:Reddish brown 5:Blackish gray 6:Violet 7:Black | | Color of matured seed coat |
| 11 | Flowering date | Block | Observation | date | | Date of flowering has occurred in about 40-50% of plants |
| 12 | Maturation period | Block | Observation | date | | Date when color of dehiscent leaves or capsules of lower position turn yellow |
| 13 | Height of the first capsule grown | 5 plants | Measurement | cm (integer) | | Observe at the maturing time |

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| 1 | Cotyledon color | Block | Observation | 1:Green 8:Light green | | Observe one week after germination |
| 2 | Cotyledon shape | Block | Observation | 1:Flat 8:Cup shape | | Observe one week after germination |
| 3 | Leaf color | Block | Observation | 1:Light green 3:Green 5:Dark green 7:Violet green | | Observe at the beginning time of flowering |
| 4 | Color of stem basal position petiole and vein | Block | Observation | 0:Absent 9:Present | | Presence or absence of anthocyan pigmentation |
| 5 | Stem shape in cross section | Block | Observation | 3:Square 5:Hexagon 7:Round | | Shape of the first or the second node |
| 6 | Shape of corolla | Block | Observation | 1:Complete shape 9:Incomplete shape | | Complete shape; right part is symmetrical with left to central axis |
| 7 | Color of corolla edge | Block | Observation | 1:White 3:Yellowish green 5:Pink | | Observe at flowering time |
| 8 | Lower lip color | Block | Observation | 0:Absent 9:Present | | Observe at flowering time |
| 9 | Basal color of lower lip | Block | Observation | 1:Yellow 3:Yellowish pink 5:Pink | | Observe at flowering time |
| 10 | Corolla hairiness | Block | Observation | 0:Glabrous 9:Hairy | | Observe at flowering time |
| 11 | Capsule shape | Block | Observation | 1:Tapered 3:Narrow oblong 5:Round oblong 7:Square | | |
| 12 | Density of capsule hair | Block | Observation | 0:None 3:Thin 5:Dense | | The density at the time of capsule growing |
| 13 | Length of capsule hair | Block | Observation | 1:Short 8:Long | | The length at the time of capsule growing |
| 14 | Color of dry capsule | Block | Observation | 3:Straw 5:Brown 7:Purple | | The color after harvest |
| 15 | Number of seeds per capsule | 10 capsules | Measurement | (integer) | | Before dehiscence and shattering, keep capsule then count number of seeds |

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| 16 | Number of capsules per plant | 5 plants | Measurement | (integer) | | At maturing time |
| 17 | Plant height | 5 plants | Measurement | cm (integer) | | Measured height at maturing time |
| 18 | Number of branches per plant | 5 plants | Measurement | (round to the 1st decimal place) | | Number of primary branches |
| 19 | 1000 seed weight | Block | Measurement | g (round to the 1st decimal place) | | Measure the weight of 100 mature seeds five times, then calculate its average |

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| 1 | Lodging resistance | Block | Observation | 1:Very low 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High 9:Very high | The degree of lodging at maturity |
| 2 | Phoma wilt resistance | Block | Obs.&Measr. | 1:Very low 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High 9:Very high | The degree of resistance to Phoma sesami Sawada in field and in injection tests |
| 3 | Bacterial leaf spot resistance | Block | Obs.&Measr. | 1:Very low 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High 9:Very high | The degree of resistance to Alternaria sesamicola Kawamura in field or injection tests |
| 4 | Mosaic virus resistance | Block | Obs.&Measr. | 1:Very low 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High 9:Very high | The degree of resistance to TUMV and UMV in field or injection tests |
| 5 | Wilt disease resistance | Block | Obs.&Measr. | 1:Very low 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High 9:Very high | The degree of resistance to Fusarium oxysporum f. sp. sesami in field or in injection tests |

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| No | Characters | No. of samples | Methods | Rank or measurement unit | | Remarks |
| 1 | Low temperature germinability | 100 seeds | Measurement | 3:Low 4:Slightly low 5:Intermediate 6:Slightly high 7:High | | Test germinability under low temperature |
| 2 | Photoperiodicity | 5 plants | Measurement | 3:Short 5:Intermediate 7:Long | | Measure its critical day length |
| 3 | Leaf shedding | Block | Observation | 3:Easy 4:Slightly easy 5:Intermediate 6:Slightly hard 7:Hard | | Degree of leaf shedding at maturity |
| 4 | Hullability | Block | Observation | 3:Easy 4:Slightly easy 5:Intermediate 6:Slightly hard 7:Hard | | Hullability of seeds at maturity |

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| No | Characters | No. of samples | Methods | Rank or measurement unit | | Remarks |
| 1 | Seed yield | Block | Measurement | kg/a (round to the 1st decimal place) | | Each experimental plot is about 4 square meters in area |
| 2 | Oil content | | Measurement | % (round to the 1st decimal place) | | Measured by Soxhlet method |
| 3 | Oleic acid content | | Measurement | % (round to the 1st decimal place) | | Measured by Gas chromatography |
| 4 | Linoleic acid content | | Measurement | % (round to the 1st decimal place) | | Measured by Gas chromatography |
| 5 | Sesamolin content | | Measurement | % (round to the 1st decimal place) | | Measured by High Performance Liquid Chromatograph |

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| No | Characters | No. of samples | Methods | Rank or measurement unit | | Remarks |
| 1 | Total dry weight | Block | Measurement | kg/a (round to the 1st decimal place) | | The fruit + stem + capsule + weight; calculate assuming 15% water content |
| 2 | Protein content | | Measurement | % (round to the 1st decimal place) | | |
| 3 | Calcium content | | Measurement | mg/g (round to the 1st decimal place) | | |
| 4 | Sesamin content | | Measurement | mg/g (round to the 1st decimal place) | | |
| 5 | Flavor strength | | Measurement | 3:Weak 4:Slightly weak 5:Intermediate 6:Slightly strong 7:Strong | | Evaluated roasted seeds' flavor |