**Table S1: List of genotypes, their respective population, area of collection, species and their morphological evaluation data and the formulated Indian core collection**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Population** | **Indian Core** | **Area of Collection** | **IIHR Number** | **NAME** | **Species** | **Early Plant Vigour** | **Plant Growth Habit** | **Sex Expression** | **Leaf Lobing** | **Number of Primary Branches per Plant** | **Vine Length (cm)** | **Fruit Shape** | **Primary fruit skin colour** | **Secondary Fruit Skin Colour** | **Flesh Colour** | **Fruit weight (kg)** | **Number of Fruits Per Plant** | **Distribution of Grooves** | **Seed Colour** | **Fruit Skin Stripe Colour** | **Total Soluble Solids** | **Fruit Bitterness** | **Remarks** |
| 1 | PopI Admx |  | USA | IIHR-9 | Hybrid 313 derivative | *C. lanatus* | 3 | 2 | 1 | 2 | 3.80 | 134.00 | 2 | 1 | 5 | 2 | 1.70 | 0.70 | 1 | 2 | 1 | 7.05 | 1 |  |
| 2 | PopI Admx |  | USA | IIHR-10 | Crimson Sweet | *C. lanatus* | 3 | 2 | 1 | 2 | 4.65 | 163.88 | 2 | 1 | 3 | 2 | 1.70 | 0.78 | 4 | 2 | 3 | 6.70 | 1 |  |
| 3 | PopI Admx |  | Japan | IIHR-12 | Summer Carnival hybrid derivative | *C. lanatus* | 3 | 2 | 1 | 2 | 4.20 | 144.10 | 2 | 2 | 3 | 2 | 1.00 | 0.60 | 4 | 2 | 2 | 6.60 | 1 |  |
| 4 | PopI Admx |  | Japan | IIHR-13 | Summer Carnival hybrid derivative | *C. lanatus* | 2 | 2 | 2 | 2 | 4.00 | 152.30 | 2 | 2 | 3 | 2 | 1.00 | 0.80 | 4 | 2 | 3 | 6.60 | 1 |  |
| 5 | PopI C |  | Taiwan | IIHR-14 | Taiwan | *C. lanatus* | 3 | 2 | 1 | 2 | 3.80 | 149.80 | 2 | 1 | 3 | 4 | 1.90 | 1.00 | 4 | 2 | 3 | 6.60 | 1 |  |
| 6 | PopI C |  | Maharashtra, India | IIHR-15 | MHW-5 | *C. lanatus* | 3 | 1 | 1 | 2 | 2.00 | 115.00 |  |  |  | 2 | 1.40 |  | 4 | 1 | 3 | 7.50 | 1 |  |
| 7 | PopI Admx |  | Pali, India | IIHR-17 | Pali Collection | *C. lanatus* | 3 | 2 | 1 | 2 | 4.40 | 130.60 | 2 | 2 | 3 | X(2,4) | 1.50 | 0.38 | 4 | 4 | 3 | 6.30 | 1 |  |
| 8 | PopI C |  | Chattisgarh, India | IIHR-20 | Chattishgarh collection | *C. lanatus* | 3 | 2 | 2 | 2 | 4.90 | 159.90 | 2 | 1 | 3 | 3 | 1.65 | 0.40 | 4 | 2 | 3 | 6.88 | 1 |  |
| 9 | PopI B |  | Jahajpur, India | IIHR-21 | Jahajpur Collection | *C. lanatus* | 3 | 2 | 1 | 2 | 4.00 | 168.00 | 2 | 1 | 3 | 1 | 1.10 | 0.20 | 4 | 3 | 2 | 6.55 | 2 |  |
| 10 | PopI Admx |  | India | IIHR-30 | IIHR-30 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.30 | 141.40 | 2 | 1 | 5 | 4 | 1.80 | 0.88 | 4 | 1 | 3 | 5.60 | 1 |  |
| 11 | PopI Admx | **Y** | India | IIHR-38 | IIHR-38 | *C. lanatus* | 3 | 2 | 2 | 2 | 4.50 | 132.90 | 2 | 1 | 3 | X(2,4) | 1.30 | 0.43 | 4 | 1 | 3 | 6.20 | 1 |  |
| 12 | PopI Admx |  | Bikaner, Rajasthan, India | IIHR-42 | AHW-65 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.25 | 125.75 | 2 | 1 | 3 | 1 | 0.80 | 0.50 | 4 | 1 | 2 | 8.30 | 1 |  |
| 13 | PopI B | **Y** | Delhi, India | IIHR-43 | Sadabahar | *C. lanatus* | 3 | 2 | 1 | 2 | 4.60 | 153.40 | 2 | 2 | 3 | 4 | 0.90 | 0.50 | 4 | 2 | 2 | 5.20 | 2 |  |
| 14 | PopI B |  | Delhi, India | IIHR-47 | CWH-7-Century Hybrid derivative | *C. lanatus* | 3 | 2 | 1 | 3 | 3.00 | 147.80 | 4 | 1 | 3 | 7 | 1.30 | 0.40 | 4 | 1 | 2 | 8.70 | 1 |  |
| 15 | PopI B |  | Durgapura, Rajasthan, India | IIHR-52a | Durgapura Selection | *C. lanatus* | 3 | 2 | 2 | 2 | 3.90 | 156.90 | 2 | 2 | 3 | X(1,4) | 1.10 | 0.50 | 4 | 2 | 2 | 7.20 | 1 |  |
| 16 | PopI Admx |  | Durgapura, Rajasthan, India | IIHR-52c | Durgapura Selection | *C. lanatus* | 2 | 2 | 1 | 2 | 2.67 | 106.67 | 4 | 1 | 3 | 1 | 0.60 | 0.50 | 4 | 2 | 1 | 10.34 | 1 |  |
| 17 | PopI C |  | Johari, Rajasthan, India | IIHR-55 | Johari Local | *C. lanatus* | 3 | 2 | 1 | 2 | 3.00 | 202.00 | 4 | 2 | 3 | 2 | 0.94 | 1.00 | 4 | 3 | 3 | 5.92 | 1 |  |
| 18 | PopI C | **Y** | Waynad, Kerala, India | IIHR-60a | Waynad Collection | *C. lanatus* | 3 | 2 | 1 | 3 | 4.00 | 128.80 | 2 | 2 | 3 | X(1,4) | 0.80 | 0.60 | 2 | 2 | 2 | 7.20 | 1 |  |
| 19 | PopI B |  | USA | IIHR-78 | Alibaba | *C. lanatus* | 3 | 2 | 2 | 2 | 3.95 | 239.20 | 4 | 1 | 1 | 1 | 2.74 | 1.85 | 1 | 1 | 1 | 9.60 | 1 |  |
| 20 | Overall admx |  | USA | IIHR-85 | Red Seeded Citron | *C. amarus* | 2 | 2 | 1 | 2 | 4.00 | 182.00 | 1 | 1 | 2 | 5 | 2.32 | 2.90 | 1 | 9 | 3 | 3.56 | 2 |  |
| 21 | PopI Admx |  | USA | IIHR-95 | Fairfax | *C. lanatus* | 3 | 2 | 2 | 3 | 4.50 | 157.30 | 2 | 1 | 3 | X(2,4) | 1.20 | 0.30 | 4 | 2 | 2 | 6.40 | 2 |  |
| 22 | PopI C |  | USA | IIHR-97 | Golden Midget | *C. lanatus* | 3 | 2 | 1 | 3 | 3.30 | 121.50 | 2 | 1 | 3 | 1 | 1.50 | 0.60 | 4 | 1 | 2 | 9.30 | 1 |  |
| 23 | PopI Admx | **Y** | India | IIHR-105 | Melit Polski | *C. lanatus* | 3 | 2 | 2 | 3 | 4.00 | 175.30 | 2 | 2 | 3 | 2 | 0.87 | 1.00 | 4 | 2 | 2 | 8.73 | 1 |  |
| 24 | PopI B |  | USA | IIHR-112 | Small Shining Light | *C. lanatus* | 2 | 2 | 2 | 3 | 4.50 | 105.00 | 2 | 2 | 3 | 2 | 0.80 | 1.00 | 4 | 2 | 2 | 10.90 | 1 |  |
| 25 | PopI C |  | USA | IIHR-113 | Sugar Baby | *C. lanatus* | 3 | 2 | 1 | 2 | 3.40 | 99.20 | 2 | 3 | 3 | 1 | 1.50 | 1.00 | 4 | 2 | 2 | 8.80 | 1 |  |
| 26 | PopI C |  | USA | IIHR-114 | Sugarlee | *C. lanatus* | 3 | 2 | 1 | 3 | 5.40 | 148.50 | 2 | 2 | 3 | 1 | 1.30 | 0.20 | 1 | X(1,3) | 3 | 8.10 | 1 |  |
| 27 | PopI C | **Y** | Bikaner, Rajasthan, India | VRW-3 | VRW-3 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.90 | 129.10 | 2 | 2 | 4 | 1 | 1.50 | 0.75 | 4 | 1 | 2 | 6.70 | 1 |  |
| 28 | PopI B | **Y** | Mizoram, India | IIHR-136 | Mizoram Collection | *C. lanatus* | 3 | 2 | 1 | 2 | 4.70 | 131.80 | 2 | 1 | 3 | 1 | 0.90 | 0.75 | 4 | X(1,3) | 2 | 8.40 | 1 |  |
| 29 | PopI Admx |  | Mizoram, India | IIHR-137 | Mizoram Collection | *C. amarus* | 3 | 2 | 1 | 2 | 4.00 | 156.10 | 2 | 1 | 3 | 2 | 1.20 | 0.75 | 4 | 1 | 2 | 8.50 | 1 |  |
| 30 | PopI Admx |  | Bangalore, Karnataka, India | IIHR-138 | Indam Arjun Hybrid derivative | *C. lanatus* | 3 | 2 | 1 | 2 | 4.20 | 127.00 | 3 | 2 | 3 | 1 | 1.75 | 0.60 | 4 | 1 | 2 | 7.88 | 1 |  |
| 31 | PopI C |  | Bangalore, Karnataka, India | IIHR-139 | Nunhems Hybrid Derivative | *C. lanatus* | 3 | 2 | 1 | 3 | 3.30 | 121.40 | 2 | 1 | 3 | 1 | 1.30 | 0.60 | 4 | 1 | 2 | 7.00 | 2 |  |
| 32 | PopI C |  | Bangalore, Karnataka, India | IIHR-140a | Nunhems Hybrid Derivative | *C. lanatus* | 3 | 2 | 1 | 2 | 3.20 | 122.60 | 4 | 1 | 3 | 1 | 1.50 | 1.00 | 4 | 2 | 2 | 8.80 | 1 |  |
| 33 | PopI Admx |  | Bangalore, Karnataka, India | IIHR-140b | Nunhems Hybrid Derivative | *C. lanatus* | 3 | 2 | 1 | 2 | 3.20 | 114.70 | 2 | 1 | 3 | 1 | 1.30 | 0.60 | 4 | 1 | 2 | 5.70 | 2 |  |
| 34 | PopI B |  | Bangalore, Karnataka, India | IIHR-141a | Nunhems Hybrid Derivative | *C. lanatus* | 3 | 2 | 2 | 2 | 3.90 | 134.60 | 4 | 1 | 3 | 2 | 1.70 | 1.00 | 4 | 1 | 1 | 6.80 | 1 |  |
| 35 | PopI B |  | Bangalore, Karnataka, India | IIHR-141b | Nunhems Hybrid Derivative | *C. lanatus* | 3 | 2 | 2 | 2 | 5.00 | 120.00 | 2 | 3 | 3 | 1 | 2.00 | 1.00 | 2 | 3 | 2 | 6.88 | 1 |  |
| 36 | PopI Admx |  | Bangalore, Karnataka, India | IIHR-142a | Nunhems Hybrid Derivative | *C. lanatus* | 3 | 2 | 1 | 2 | 4.60 | 104.60 | 4 | 1 | 3 | 2 | 1.80 | 1.00 | 4 | 3 | 2 | 6.50 | 1 |  |
| 37 | PopI Admx |  | Bangalore, Karnataka, India | IIHR-142b | Nunhems Hybrid Derivative | *C. lanatus* | 3 | 2 | 1 | 2 | 6.67 | 104.00 | 2 | 3 | 3 | 2 | 2.23 | 1.00 | 4 | 3 | 2 | 7.35 | 1 |  |
| 38 | PopI Admx |  | Bangalore, Karnataka, India | IIHR-143a | Nunhems Hybrid Derivative | *C. lanatus* | 3 | 2 | 1 | 2 | 4.10 | 143.10 |  |  |  | 2 | 0.70 | 0.40 | 4 | 2 | 2 | 7.00 | 1 |  |
| 39 | PopIIB |  | Bangalore, Karnataka, India | IIHR-143b | Nunhems Hybrid Derivative | *C. lanatus* | 3 | 2 | 1 | 3 | 4.30 | 131.80 | 2 | 1 | 3 | 1 | 0.60 | 0.25 | 4 | 2 | 1 | 9.20 | 1 |  |
| 40 | PopI Admx |  | Bangalore, Karnataka, India | IIHR-147 | Yellow Baby Hybrid Derivative | *C. lanatus* | 3 | 2 | 1 | 2 | 4.40 | 127.00 | 3 | 1 | 3 | 3 | 1.20 | 0.80 | 4 | 2 | 3 | 7.30 | 1 |  |
| 41 | PopI A |  | USA | IIHR-127 | Tender Sweet | *C. lanatus* | 3 | 2 | 1 | 3 | 4.23 | 260.50 | 3 | 2 | 3 | 7 | 3.21 | 0.90 | 1 | 1 | 3 | 9.68 | 2 |  |
| 42 | PopI Admx |  | USA | IIHR-131 | Golden Midget | *C. lanatus* | 2 | 2 | 1 | 2 | 3.89 | 198.60 | 2 | 5 | 1 | 1 | 1.45 | 1.60 | 1 | 3 | 1 | 9.78 | 1 |  |
| 43\* | PopI Admx |  | USA | IIHR-125 | Very Sweet | *C. lanatus* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 44 | PopI Admx |  | Durgapura, Rajasthan, India | IIHR-51 | Durgapura Lal | *C. lanatus* | 3 | 2 | 2 | 1 | 4.21 | 198.65 | 2 | 1 | 3 | 1 | 2.78 | 1.43 | 1 | 3 | 3 | 8.30 | 1 |  |
| 45 | PopI Admx |  | Rajasthan, India | IIHR-151 | IC0430191 | *C. lanatus* | 2 | 2 | 1 | 2 | 3.60 | 174.40 | 2 | 2 | 3 | 2 | 0.85 | 0.83 | 1 | 3 | 2 | 4.90 | 1 |  |
| 46 | PopI B |  | Rajasthan, India | IIHR-152 | IC0430192 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.60 | 181.20 | 2 | 2 | 3 | 2 | 1.55 | 0.83 | 4 | 3 | 3 | 3.30 | 1.5 |  |
| 47 | PopI Admx |  | Rajasthan, India | IIHR-153 | IC0430193 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.50 | 170.50 | 2 | 1 | 3 | 2 | 1.30 | 0.83 | 4 | 3 | 2 | 5.66 | 1.5 |  |
| 48 | PopI Admx |  | Rajasthan, India | IIHR-154 | IC0430194 | *C. lanatus* | 2 | 2 | 2 | 2 | 3.71 | 183.57 | 2 | 4 | 3 | 2 | 1.01 | 1.33 | 4 | 3 | 2 | 4.62 | 1 |  |
| 49 | PopI B |  | Rajasthan, India | IIHR-155 | IC0430195 | *C. lanatus* | 2 | 2 | 1 | 3 | 4.40 | 156.25 | 2 | 4 | 3 | 2 | 0.65 | 1.67 | 1 | 2 | 2 | 5.10 | 1.5 |  |
| 50 | PopI B |  | Rajasthan, India | IIHR-156 | IC0430196 | *C. lanatus* | 2 | 2 | 1 | 2 | 4.00 | 184.14 | 2 | 4 | 3 | 2 | 0.96 | 1.00 | 1 | 3 | 2 | 4.90 | 1 |  |
| 51 | PopI Admx |  | Rajasthan, India | IIHR-157 | IC0430197 | *C. lanatus* | 3 | 2 | 1 | 3 | 4.50 | 171.60 | 2 | 4 | 3 | 2 | 0.68 | 1.67 | 4 | 3 | 1 | 3.67 | 1.5 |  |
| 52 | PopI B |  | Rajasthan, India | IIHR-158 | IC0430198 | *C. colocynthis* | 3 | 2 | 1 | 2 | 4.00 | 175.00 | 2 | 2 | 3 | 3 | 0.76 | 1.33 | 4 | 3 | 2 | 4.06 | 1 |  |
| 53 | PopI Admx |  | Rajasthan, India | IIHR-159 | IC0430199 | *C. lanatus* | 3 | 2 | 2 | 2 | 3.50 | 221.83 | 4 | 4 | 3 | 2 | 1.10 | 1.00 | 4 | 3 | 2 | 5.24 | 1.5 |  |
| 54\* | PopI B |  | Rajasthan, India | IIHR-160 | IC0430200 | *C. lanatus* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55 | PopI B |  | Rajasthan, India | IIHR-161 | IC0430201 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.67 | 143.50 | 4 | 4 | 3 | 2 | 0.75 | 2.00 | 4 | 3 | 2 | 5.35 | 2 |  |
| 56 | PopI Admx |  | Rajasthan, India | IIHR-162 | IC0430202 | *C. lanatus* | 2 | 2 | 1 | 3 | 4.00 | 140.00 | 2 | 1 | 3 | 2 | 1.60 | 0.75 | 4 | 3 | 2 | 5.30 | 1.5 |  |
| 57 | PopI B | **Y** | Rajasthan, India | IIHR-163 | IC0430203 | *C. lanatus* | 2 | 2 | 1 | 3 | 2.80 | 141.60 | 4 | 3 | 3 | 2 | 0.56 | 1.00 | 1 | 1 | 2 | 4.16 | 1 |  |
| 58 | PopI Admx |  | Rajasthan, India | IIHR-164 | IC0430204 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.50 | 192.25 | 2 | 4 | 3 | 2 | 0.98 | 1.50 | 4 | 3 | 2 | 4.45 | 1.5 |  |
| 59 | PopI B |  | Rajasthan, India | IIHR-165 | IC0430205 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.00 | 151.00 | 2 | 4 | 3 | 2 | 0.40 | 1.00 | 4 | 1 | 2 | 3.00 | 2.5 |  |
| 60 | PopI B |  | Rajasthan, India | IIHR-166 | IC0430206 | *C. lanatus* | 2 | 2 | 1 | 2 | 3.60 | 173.80 | 2 | 4 | 3 | 2 | 1.60 | 1.20 | 4 | 3 | 2 | 9.00 | 2 |  |
| 61 | PopI B |  | Rajasthan, India | IIHR-167 | IC0430207 | *C. lanatus* | 2 | 2 | 1 | 3 | 4.00 | 183.50 | 2 | 4 | 3 | 2 | 1.08 | 1.43 | 4 | 3 | 2 | 4.30 | 1 |  |
| 62 | PopI Admx |  | Rajasthan, India | IIHR-168 | IC0430208 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.00 | 147.00 | 2 | 4 | 3 | 2 | 0.85 | 1.00 | 4 | 3 | 2 | 6.00 | 1.5 |  |
| 63 | PopI Admx |  | Rajasthan, India | IIHR-169 | IC0430209 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.20 | 147.80 | 2 | 4 | 3 | 2 | 1.00 | 0.86 | 4 | 3 | 2 | 3.92 | 1 |  |
| 64 | PopI Admx |  | Rajasthan, India | IIHR-170 | IC0430210 | *C. lanatus* | 2 | 2 | 2 | 3 | 3.67 | 156.33 | 2 | 4 | 3 | 2 | 0.90 | 1.00 | 4 | 3 | 2 | 6.72 | 1.5 |  |
| 65 | PopI Admx |  | Rajasthan, India | IIHR-171 | IC0430211 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.75 | 229.38 | 2 | 4 | 3 | 2 | 1.21 | 1.20 | 2 | 3 | 2 | 5.78 | 1.5 |  |
| 66 | PopI Admx |  | Rajasthan, India | IIHR-172 | IC0430212 | *C. lanatus* | 2 | 2 | 1 | 2 | 3.57 | 219.57 | 2 | 4 | 3 | 2 | 0.75 | 1.00 | 4 | 3 | 2 | 3.85 | 1 |  |
| 67 | PopI B |  | Rajasthan, India | IIHR-173 | IC0430213 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.71 | 215.50 | 2 | 4 | 3 | 2 | 1.42 | 1.33 | 4 | 3 | 2 | 6.04 | 1.5 |  |
| 68 | PopI Admx |  | Rajasthan, India | IIHR-174 | IC0430214 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.00 | 152.00 | 2 | 4 | 3 | 2 | 0.38 | 1.00 | 3 | 3 | 1 | 2.70 | 1 |  |
| 69 | PopI Admx |  | Rajasthan, India | IIHR-175 | IC0430215 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.00 | 155.00 | 3 | 3 | 3 | 2 | 1.15 | 1.40 | 4 | 4 | 2 | 4.20 | 1.5 |  |
| 70 | PopI Admx |  | Rajasthan, India | IIHR-176 | IC0430216 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.00 | 151.00 | 2 | 1 | 2 | 2 | 1.55 | 1.40 | 4 | 3 | 2 | 8.35 | 1 | Field tolerant to GSB |
| 71 | PopI B |  | Rajasthan, India | IIHR-177 | IC0430217 | *C. lanatus* | 3 | 2 | 1 | 3 | 4.00 | 161.00 | 2 | 4 | 3 | 2 | 0.40 | 1.00 | 4 | 3 | 2 | 2.80 | 1 |  |
| 72 | PopI B |  | Rajasthan, India | IIHR-178 | IC0430218 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.00 | 216.50 | 2 | 4 | 3 | 2 | 1.00 | 1.25 | 4 | 3 | 2 | 6.18 | 1 |  |
| 73 | PopI B |  | Rajasthan, India | IIHR-179 | IC0430219 | *C. lanatus* | 2 | 2 | 2 | 3 | 4.00 | 160.33 | 2 | 4 | 3 | 2 | 0.98 | 1.00 | 2 | 3 | 2 | 4.40 | 1 |  |
| 74 | PopI B |  | Rajasthan, India | IIHR-180 | IC0430220 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.50 | 152.00 | 2 | 3 | 2 | 2 | 0.66 | 0.80 | 4 | 3 | 3 | 3.93 | 1 |  |
| 75 | PopI Admx |  | Rajasthan, India | IIHR-181 | IC0430221 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.20 | 168.00 | 2 | 4 | 3 | 2 | 0.71 | 1.60 | 4 | 3 | 2 | 3.51 | 1.5 |  |
| 76 | PopI Admx | **Y** | Rajasthan, India | IIHR-182 | IC0430222 | *C. lanatus* | 2 | 2 | 2 | 3 | 3.20 | 166.00 | 2 | 3 | 3 | 3 | 0.60 | 1.50 | 2 | 3 | 1 | 3.46 | 1.5 |  |
| 77 | PopI Admx | **Y** | Rajasthan, India | IIHR-183 | IC0430223 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.20 | 211.80 | 2 | 4 | 3 | 2 | 0.92 | 1.50 | 4 | X (1,3,4) | 2 | 6.52 | 2 |  |
| 78 | PopI B |  | Rajasthan, India | IIHR-184 | IC0430224 | *C. lanatus* | 1 | 2 | 2 | 3 | 2.83 | 124.50 | 2 | 4 | 3 | 2 | 0.70 | 1.40 | 3 | 3 | 2 | 4.55 | 1 |  |
| 79 | PopI B |  | Rajasthan, India | IIHR-185 | IC0430225 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.33 | 168.50 | 2 | 4 | 3 | 2 | 0.98 | 1.17 | 1 | 3 | 2 | 6.24 | 1.5 |  |
| 80 | PopI B | **Y** | Rajasthan, India | IIHR-186 | IC0430226 | *C. lanatus* | 2 | 2 | 1 | 3 | 4.00 | 186.25 | 4 | 3 | 2 | 1 | 1.15 | 1.29 | 4 | 3 | 2 | 5.75 | 1.5 |  |
| 81\* | PopI B | **Y** | India | IIHR-187 | IC0449384 | *C. colocynthis* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 82 | PopI B |  | Gujarat, India | IIHR-188 | IC0449386 | *C. colocynthis* | 2 | 2 | 1 | 3 | 3.50 | 144.40 | 2 | 4 | 3 | 5 | 0.35 | 1.35 | 4 | 2 | 2 | 2.02 | 2 |  |
| 83 | PopI B |  | Gujarat, India | IIHR-189 | IC0449388 | *C. colocynthis* | 2 | 2 | 2 | 3 | 3.80 | 165.38 | 2 | 4 | 2 | 5 | 0.35 | 2.75 | 2 | 2 | 2 | 2.28 | 1.5 |  |
| 84 | PopI B |  | Gujarat, India | IIHR-190 | IC0449389 | *C. colocynthis* | 2 | 2 | 1 | 3 | 3.57 | 143.43 | 2 | 4 | 2 | 5 | 0.64 | 1.20 | 2 | 3 | 3 | 2.74 | 1.5 |  |
| 85 | PopI B |  | Gujarat, India | IIHR-191 | IC0449390 | *C. colocynthis* | 2 | 2 | 2 | 3 | 3.50 | 174.17 | 2 | 4 | 3 | 5 | 0.37 | 2.50 | 4 | 2 | 2 | 2.97 | 2 |  |
| 86 | PopI B | **Y** | Gujarat, India | IIHR-192 | IC0449391 | *C. colocynthis* | 2 | 2 | 1 | 3 | 3.63 | 149.13 | 2 | 3 | 3 | 5 | 0.32 | 2.67 | 2 | 2 | 2 | 2.92 | 1.5 |  |
| 87 | PopI B |  | Gujarat, India | IIHR-193 | IC0449392 | *C. colocynthis* | 2 | 2 | 1 | 3 | 3.25 | 190.25 | 2 | 1 | 3 | 5 | 0.42 | 2.40 | 4 | 2 | 2 | 2.66 | 2 |  |
| 88 | PopI Admx |  | Gujarat, India | IIHR-194 | IC0449394 | *C. colocynthis* | 2 | 2 | 2 | 3 | 3.88 | 190.75 | 2 | 3 | 3 | 5 | 0.42 | 1.89 | 2 | 3 | 3 | 2.19 | 2 |  |
| 89 | PopI B |  | Gujarat, India | IIHR-195 | IC0449395 | *C. colocynthis* | 2 | 2 | 1 | 3 | 3.83 | 159.83 | 2 | 2 | 2 | 5 | 0.29 | 3.63 | 4 | 2 | 3 | 2.57 | 1.5 |  |
| 90 | PopI B |  | Gujarat, India | IIHR-196 | IC0449396 | *C. colocynthis* | 2 | 2 | 1 | 3 | 4.00 | 150.44 | 2 | 4 | 3 | 5 | 0.82 | 1.55 | 4 | 2 | 2 | 3.52 | 1.5 | Field tolerant to GSB |
| 91 | Overall admx |  | Gujarat, India | IIHR-197 | IC0449398 | *C. colocynthis* | 2 | 2 | 1 | 3 | 3.00 | 135.50 | 2 | 4 | 3 | 5 | 0.35 | 3.75 | 4 | 3 | 2 | 2.82 | 1.5 |  |
| 92 | PopI B |  | Gujarat, India | IIHR-198 | IC0449399 | *C. colocynthis* | 3 | 2 | 1 | 3 | 3.78 | 191.78 | 2 | 4 | 3 | 5 | 0.53 | 2.20 | 4 | 2 | 3 | 2.39 | 1.5 |  |
| 93 | PopI B |  | Gujarat, India | IIHR-199 | IC0449400 | *C. colocynthis* | 2 | 2 | 2 | 3 | 3.67 | 103.00 | 2 | 4 | 2 | 5 | 0.50 | 1.75 | 3 | 2 | 3 | 2.70 | 1.5 |  |
| 94 | PopI B |  | Gujarat, India | IIHR-200 | IC0449401 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.00 | 183.14 | 4 | 4 | 2 | 5 | 1.30 | 1.11 | 4 | 2 | 2 | 8.65 | 1.5 |  |
| 95 | PopI B | **Y** | Gujarat, India | IIHR-202 | IC0449403 | *C. colocynthis* | 2 | 2 | 2 | 3 | 3.75 | 178.25 | 2 | 1 | 3 | 5 | 0.35 | 2.40 | 4 | 2 | 2 | 2.23 | 1 |  |
| 96 | PopI Admx | **Y** | Gujarat, India | IIHR-203 | IC0449404 | *C. colocynthis* | 2 | 2 | 2 | 3 | 2.71 | 152.67 | 2 | 4 | 3 | 5 | 0.31 | 2.29 | 4 | 3 | 2 | 2.08 | 2 |  |
| 97 | PopI B | **Y** | Gujarat, India | IIHR-204 | IC0449405 | *C. colocynthis* | 2 | 2 | 2 | 3 | 2.71 | 182.29 | 2 | 4 | 3 | 5 | 0.33 | 2.55 | 4 | 2 | 2 | 3.09 | 1.5 |  |
| 98 | PopI B | **Y** | Gujarat, India | IIHR-205 | IC0449409 | *C. colocynthis* | 2 | 2 | 2 | 3 | 3.80 | 130.60 | 2 | 4 | 3 | 5 | 0.35 | 2.60 | 4 | 3 | 2 | 2.43 | 1.5 |  |
| 99 | PopI Admx |  | Gujarat, India | IIHR-206 | IC0449411 | *C. colocynthis* | 3 | 2 | 1 | 2 | 3.43 | 155.71 | 2 | 4 | 3 | 5 | 0.36 | 2.43 | 4 | 3 | 2 | 2.16 | 1.5 |  |
| 100 | PopI B |  | Gujarat, India | IIHR-207 | IC0449413 | *C. colocynthis* | 2 | 2 | 1 | 2 | 3.40 | 168.20 | 2 | 4 | 3 | 5 | 0.30 | 1.71 | 3 | 2 | 2 | 3.20 | 2 |  |
| 101 | PopI Admx | **Y** | Gujarat, India | IIHR-208 | IC0449414 | *C. colocynthis* | 3 | 2 | 2 | 3 | 4.20 | 143.20 | 2 | 4 | 3 | 5 | 0.31 | 1.78 | 4 | 2 | 1 | 2.31 | 2.5 |  |
| 102 | PopI Admx |  | Gujarat, India | IIHR-209 | IC0449415 | *C. colocynthis* | 2 | 2 | 2 | 3 | 3.89 | 166.50 | 2 | 1 | 3 | 5 | 0.33 | 2.22 | 4 | 2 | 2 | 1.98 | 2 |  |
| 103 | PopI B |  | Gujarat, India | IIHR-210 | IC0449416 | *C. colocynthis* | 2 | 2 | 2 | 3 | 3.00 | 187.50 | 2 | 4 | 3 | 5 | 0.15 | 2.00 | 2 | 2 | 2 | 2.70 | 2 |  |
| 104 | Overall admx |  | Gujarat, India | IIHR-212 | IC0449418 | *C. colocynthis* | 2 | 2 | 1 | 3 | 3.33 | 158.20 | 2 | 4 | 3 | 5 | 0.32 | 1.60 | 4 | 2 | 2 | 2.15 | 2 |  |
| 105 | PopI Admx |  | Gujarat, India | IIHR-213 | IC0449419 | *C. colocynthis* | 2 | 2 | 1 | 3 | 4.17 | 149.50 | 2 | 4 | 3 | 5 | 0.47 | 3.00 | 4 | 2 | 2 | 3.00 | 2 |  |
| 106 | PopI Admx |  | Gujarat, India | IIHR-214 | IC0449421 | *C. colocynthis* | 2 | 2 | 2 | 3 | 3.44 | 116.00 | 2 | 4 | 3 | 5 | 0.27 | 1.67 | 4 | 3 | 2 | 2.58 | 1.5 |  |
| 107 | PopI B | **Y** | Gujarat, India | IIHR-216 | IC0449424 | *C. colocynthis* | 2 | 2 | 1 | 3 | 3.75 | 213.25 | 2 | 4 | 3 | 5 | 0.71 | 3.10 | 4 | 2 | 2 | 3.96 | 1.5 | Field tolerant to GSB |
| 108 | PopI Admx | **Y** | Rajasthan, India | IIHR-221 | IC0315281 | *C. lanatus* | 2 | 2 | 1 | 3 | 2.88 | 156.00 | 3 | 4 | 2 | 1 | 0.90 | 0.86 | 4 | 2 | 3 | 6.45 | 1.5 |  |
| 109 | PopI C |  | Rajasthan, India | IIHR-222 | IC0315283 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.20 | 177.60 | 2 | 3 | 3 | 4 | 1.00 | 1.00 | 3 | 2 | 2 | 6.42 | 1 |  |
| 110 | PopI Admx |  | Rajasthan, India | IIHR-223 | IC0315284 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.43 | 212.43 | 4 | 3 | 3 | 1 | 1.55 | 1.11 | 4 | 2 | 3 | 4.20 | 1 |  |
| 111 | PopI Admx |  | Rajasthan, India | IIHR-224 | IC0345288 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.29 | 170.29 | 2 | 2 | 3 | 2 | 0.90 | 1.33 | 4 | 3 | 3 | 5.55 | 1 |  |
| 112 | PopI C |  | Rajasthan, India | IIHR-225 | IC0315290 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.11 | 213.38 | 2 | 3 | 2 | 1 | 1.20 | 1.00 | 4 | 1 | 3 | 6.55 | 1 |  |
| 113 | PopI C |  | Rajasthan, India | IIHR-226 | IC0315304 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.17 | 146.43 | 2 | 3 | 2 | 1 | 0.92 | 1.00 | 4 | 1 | 3 | 7.52 | 1 |  |
| 114 | PopI C |  | Rajasthan, India | IIHR-227 | IC0315306 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.50 | 192.50 | 2 | 1 | 3 | 1 | 0.67 | 1.00 | 4 | 1 | 1 | 8.80 | 1 |  |
| 115 | PopI C |  | Rajasthan, India | IIHR-228 | IC0315313 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.00 | 192.00 | 2 | 3 | 2 | 1 | 0.80 | 1.00 | 3 | 1 | 3 | 7.20 | 1 |  |
| 116 | PopI C |  | Rajasthan, India | IIHR-229 | IC0315321 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.50 | 192.67 | 2 | 3 | 2 | 1 | 1.38 | 1.00 | 4 | 3 | 3 | 8.06 | 1 |  |
| 117 | PopI C |  | Rajasthan, India | IIHR-230 | IC0315324 | *C. lanatus* | 2 | 2 | 1 | 3 | 2.78 | 179.11 | 2 | 3 | 2 | 1 | 0.61 | 0.90 | 1 | 1 | 3 | 6.85 | 1 |  |
| 118 | PopI Admx |  | Rajasthan, India | IIHR-231 | IC0315328 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.00 | 158.30 | 2 | 3 | 2 | 1 | 0.88 | 1.11 | 4 | 1 | 2 | 6.84 | 1 |  |
| 119 | PopI C |  | Uttar Pradesh, India | IIHR-233 | IC0276288 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.33 | 159.67 |  |  |  |  | 0.57 | 0.50 |  | 2 |  |  | 1 |  |
| 120 | PopI Admx |  | Uttar Pradesh, India | IIHR-236 | IC0276339 | *C. lanatus* | 2 | 2 | 1 | 2 | 4.50 | 107.75 | 2 | 4 | 3 | 2 | 0.66 | 1.25 | 4 | 3 | 2 | 6.95 | 1 |  |
| 121 | PopI C |  | Uttar Pradesh, India | IIHR-240 | IC0276354 | *C. lanatus* | 2 | 2 | 1 | 2 | 4.00 | 293.00 | 2 | 3 | 3 | 1 | 1.00 | 1.00 | 4 | 2 | 3 | 5.10 | 1 |  |
| 122 | PopI C |  | Uttar Pradesh, India | IIHR-241 | IC0276356 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.67 | 175.50 | 2 | 3 | 2 | 1 | 0.50 | 1.00 | 4 | 1 | 3 | 6.03 | 1 |  |
| 123 | PopI C |  | Uttar Pradesh, India | IIHR-243 | IC0276667 | *C. lanatus* | 3 | 2 | 2 | 3 | 3.29 | 164.57 | 2 | 3 | 3 | 4 | 0.67 | 1.25 | 1 | 2 | 2 | 4.85 | 1 |  |
| 124 | PopI Admx | **Y** | Rajasthan, India | IIHR-244 | IC0276388 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.00 | 173.38 | 2 | 3 | 2 | 1 | 0.82 | 1.00 | 1 | 1 | 3 | 7.76 | 1 |  |
| 125 | PopI Admx |  | Rajasthan, India | IIHR-245 | IC0276389 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.00 | 223.00 | 2 | 3 | 3 | 1 | 1.40 | 1.20 | 4 | 1 | 3 | 3.70 | 1 |  |
| 126 | PopI C |  | Kerala, India | IIHR-254 | IC0523074 | *C. lanatus* | 3 | 2 | 2 | 3 | 3.00 | 250.00 | 2 | 3 | 2 | 1 | 0.40 | 0.80 | 4 | 1 | 3 | 6.95 | 1 |  |
| 127 | PopI Admx |  | India | IIHR-256 | IC0523043 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.67 | 188.50 | 2 | 3 | 3 | 1 | 1.20 | 1.17 | 4 | 1 | 2 | 5.20 | 1 |  |
| 128 | PopI C |  | India | IIHR-257 | IC0523044 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.71 | 142.00 | 2 | 3 | 3 | 1 | 0.80 | 0.88 | 4 | 1 | 3 | 10.15 | 1 |  |
| 129 | PopI Admx | **Y** | India | IIHR-259 | IC0523046 | *C. lanatus* | 3 | 2 | 1 | 3 | 4.00 | 388.67 | 2 | 4 | 2 | 4 | 1.00 | 1.00 | 4 | 2 | 3 | 8.00 | 1 | Field tolerant to GSB |
| 130 | PopI Admx | **Y** | India | IIHR-260 | IC0523047 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.50 | 219.00 | 2 | 2 | 3 | X (1,3) | 1.20 | 1.00 | 1 | 1 | 2 | 6.06 | 1 |  |
| 131 | PopI Admx |  | India | IIHR-261 | IC0523048 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.60 | 271.20 | 2 | 1 | 3 | 2 | 1.95 | 0.43 | 4 | 1 | 1 | 4.75 | 1 |  |
| 132 | PopI C |  | India | IIHR-262 | IC0523049 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.00 | 172.63 | 2 | 3 | 2 | 4 | 1.16 | 1.33 | 4 | 1 | 3 | 9.33 | 1 |  |
| 133 | PopI Admx |  | Rajasthan, India | IIHR-268 | IC0523056 | *C. lanatus* | 3 | 2 | 2 | 3 | 3.29 | 162.86 | 2 | 4 | 3 | 1 | 1.15 | 1.00 | 4 | 2 | 2 | 6.16 | 1 | Field tolerant to GSB |
| 134 | PopI Admx |  | Maharashtra, India | IIHR-264 | IC0523051 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.25 | 148.75 | 2 | 4 | 2 | 1 | 0.50 | 0.86 | 1 | 2 | 3 | 6.60 | 1 |  |
| 135 | PopI Admx |  | Rajasthan, India | IIHR-266 | IC0523053 | *C. lanatus* | 3 | 2 | 1 | 3 | 2.67 | 194.67 | 2 | 1 | 3 | 4 | 0.80 | 1.00 | 1 | 2 | 2 | 4.90 | 1 |  |
| 136 | PopI Admx |  | Rajasthan, India | IIHR-267 | IC0523055 | *C. lanatus* | 3 | 2 | 1 | 3 | 4.00 | 240.33 | 2 | 1 | 3 | 1 | 0.60 | 0.83 | 4 | 1 | 2 | 4.00 | 1 |  |
| 137 | PopI Admx |  | Rajasthan, India | IIHR-268 | IC0523056 | *C. lanatus* | 3 | 2 | 1 | 3 | 4.00 | 278.14 | 4 | 3 | 3 | 2 | 2.30 | 0.33 | 4 | 2 | 3 | 7.00 | 1 | Field tolerant to GSB |
| 138 | PopI Admx |  | Uttar Pradesh, India | IIHR-270 | IC0523058 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.75 | 263.25 | 2 | 1 | 3 | 2 | 1.40 | 0.60 | 1 | 3 | 2 | 4.20 | 1 |  |
| 139 | PopI Admx | **Y** | India | IIHR-271 | IC0523059 | *C. lanatus* | 2 | 2 | 1 | 3 | 2.67 | 232.33 | 2 | 2 | 3 | 2 | 3.35 | 0.40 | 4 | 1 | 3 | 7.85 | 1 |  |
| 140 | PopI B | **Y** | Tamil Nadu, India | IIHR-272 | IC0523060 | *C. colocynthis* | 3 | 2 | 1 | 3 | 3.14 | 211.14 | 2 | 4 | 3 | X (1,5) | 1.42 | 1.17 | 4 | 2 | 2 | 2.72 | 1 |  |
| 141 | PopI Admx |  | India | IIHR-275 | IC0523063 | *C. lanatus* | 2 | 2 | 2 | 3 | 3.25 | 144.00 | 2 | 4 | 3 | 2 | 0.96 | 1.40 | 1 | 3 | 2 | 6.76 | 1.5 |  |
| 142 | PopI C |  | Delhi, India | IIHR-277 | IC0523065 | *C. lanatus* | 3 | 2 | 1 | 3 | 2.00 | 185.00 | 2 | 3 | 3 | 1 | 0.70 | 0.83 | 1 | 1 | 3 | 6.27 | 1 |  |
| 143 | PopI C |  | Maharashtra, India | IIHR-278 | IC0523066 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.17 | 133.50 | 2 | 3 | 2 | 1 | 1.00 | 1.13 | 2 | 1 | 2 | 7.08 | 1 |  |
| 144 | PopI Admx |  | Karnataka, India | IIHR-279 | IC0523067 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.57 | 205.86 | 2 | 3 | 3 | 2 | 1.10 | 1.00 | 4 | 2 | 2 | 8.43 | 1 |  |
| 145 | PopI C | **Y** | Rajasthan, India | IIHR-281 | IC0523069 | *C. lanatus* | 3 | 2 | 1 | 1 | 3.00 | 199.25 | 2 | 3 | 2 | 1 | 1.20 | 1.00 | 1 | 2 | 3 | 9.13 | 1 |  |
| 146 | PopI B |  | Rajasthan, India | IIHR-282 | IC0523070 | *C. lanatus* | 3 | 2 | 2 | 3 | 3.33 | 213.00 | 2 | 2 | 3 | 2 | 0.35 | 1.00 | 4 | 2 | 3 | 8.30 | 1 |  |
| 147 | Overall admx |  | Rajasthan, India | IIHR-283 | IC0523071 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.25 | 230.25 | 2 | 2 | 3 | 2 | 1.53 | 1.25 | 4 | 3 | 1 | 4.60 | 1 | Field tolerant to GSB |
| 148 | PopI A |  | Karnataka, India | IIHR-285 | IC0523073 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.17 | 223.50 | 2 | 3 | 3 | 1 | 0.96 | 0.86 | 4 | 2 | 2 | 8.00 | 1 | Field tolerant to GSB |
| 149 | PopI Admx |  | India | IIHR-258 | IC0523045 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.00 | 252.40 |  |  |  |  |  |  |  |  |  |  |  |  |
| 150 | PopI Admx |  | Rajasthan, India | IIHR-284 | IC0523072 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.83 | 164.80 | 2 | 1 | 3 | 1 | 1.10 | 0.40 | 4 | 1 | 2 | 8.20 | 1 |  |
| 151 | PopI B | **Y** | Rajasthan, India | IIHR-286 | IC0370470 | *C. colocynthis* | 3 | 2 | 1 | 3 | 4.00 | 133.33 | 2 | 4 | 3 | 2 | 0.87 | 1.75 | 4 | 3 | 2 | 5.65 | 1 |  |
| 152 | PopI Admx |  | Rajasthan, India | IIHR-287 | IC0370485 | *C. colocynthis* | 2 | 2 | 1 | 3 | 4.00 | 153.00 | 2 | 4 | 3 | 5 | 0.68 | 1.00 | 4 | 2 | 2 | 3.26 | 1.5 |  |
| 153 | Overall admx | **Y** | Rajasthan, India | IIHR-288 | IC0370505 | *C. lanatus* | 3 | 2 | 2 | 3 | 4.00 | 237.00 | 2 | 1 | 3 | 5 | 0.52 | 3.50 | 4 | 2 | 2 | 1.64 | 1.5 |  |
| 154 | PopI Admx |  | Rajasthan, India | IIHR-289 | IC0370514 | *C. colocynthis* | 3 | 2 | 1 | 3 | 3.75 | 147.00 | 2 | 4 | 3 | 5 | 0.40 | 2.60 | 4 | 3 | 2 | 2.50 | 2 |  |
| 155 | PopI Admx | **Y** | Rajasthan, India | IIHR-290 | IC0370530 | *C. colocynthis* | 3 | 2 | 2 | 3 | 4.75 | 102.40 | 2 | 4 | 3 | 5 | 1.00 | 1.50 | 4 | 3 | 2 | 5.33 | 2 |  |
| 156 | PopI Admx | **Y** | Rajasthan, India | IIHR-291 | IC0370564 | *C. lanatus* | 3 | 2 | 2 | 3 | 2.75 | 190.75 | 2 | 4 | 3 | 2 | 1.00 | 0.67 | 3 | 3 | 2 | 4.05 | 1 |  |
| 157 | PopI Admx |  | Rajasthan, India | IIHR-292 | IC0370570 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.67 | 112.00 | 2 | 4 | 3 | 2 | 0.80 | 1.00 | 4 | 3 | 2 | 6.00 | 1 |  |
| 158 | PopI B |  | Rajasthan, India | IIHR-293 | IC0373442 | *C. lanatus* | 2 | 2 | 2 | 3 | 3.50 | 163.75 | 2 | 2 | 3 | 5 | 0.56 | 1.00 | 1 | 2 | 1 | 4.76 | 1 |  |
| 159 | PopI Admx |  | Rajasthan, India | IIHR-294 | IC0373494 | *C. lanatus* | 2 | 2 | 1 | 3 | 4.00 | 189.00 | 2 | 2 | 3 | 2 | 1.25 | 1.33 | 1 | 3 | 2 | 2.00 | 1 |  |
| 160 | PopI Admx |  | Rajasthan, India | IIHR-295 | IC0373510 | *C. lanatus* | 2 | 2 | 1 | 3 | 3.25 | 175.00 | 2 | 1 | 3 | 2 | 0.90 | 1.25 | 4 | 3 | 2 | 4.07 | 1 |  |
| 161 | PopI Admx |  | Rajasthan, India | IIHR-296 | IC0373514 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.50 | 167.17 | 2 | 1 | 3 | 2 | 1.40 | 1.67 | 4 | 3 | 2 | 6.00 | 1 | Field tolerant to GSB |
| 162 | PopI A | **Y** | Rajasthan, India | IIHR-297 | IC0373515 | *C. lanatus* | 3 | 2 | 2 | 3 | 4.00 | 186.00 | 2 | 1 | 3 | 2 | 0.52 | 1.00 | 4 | X (2,3) | 2 | 5.00 | 1 |  |
| 163 | PopI Admx | **Y** | Rajasthan, India | IIHR-298 | IC0373540 | *C. lanatus* | 3 | 2 | 1 | 3 | 4.00 | 238.50 | 2 | 3 | 3 | 1 | 1.15 | 1.00 | 4 | 3 | 2 | 6.30 | 1 |  |
| 164 | PopI Admx |  | Rajasthan, India | IIHR-299 | IC0373550 | *C. colocynthis* | 2 | 2 | 1 | 3 | 4.00 | 143.00 | 2 | 4 | 3 | 2 | 2.30 | 1.00 | 4 | 3 | 2 | 6.10 | 1 |  |
| 165 | PopI Admx |  | Rajasthan, India | IIHR-300 | IC0373555 | *C. lanatus* | 3 | 2 | 1 | 3 | 4.33 | 193.50 | 2 | 4 | 3 | 2 | 0.85 | 1.75 | 4 | 3 | 2 | 5.03 | 1 |  |
| 166 | PopIIB |  | Uttar Pradesh, India | IIHR-587 | IC0321381 | *C. mucospermus* | 3 | 2 | 2 | 3 | 3.80 | 273.40 | 2 | 1 | 3 | 1 | 0.80 | 0.40 | 1 | 1 | 1 | 4.50 | 1 | Field tolerant to GSB |
| 167 | PopI Admx |  | India | IIHR-589 | IC0604754 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.50 | 271.30 | 2 | 3 | 3 | 1 | 1.00 | 0.60 | 1 | 1 | 3 | 5.80 | 1 |  |
| 168\* | PopI Admx |  | India | IIHR-590 | IC0604490 | *C. lanatus* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 169 | PopI C |  | Uttar Pradesh, India | IIHR-591 | IC0550997 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.90 | 272.46 | 2 | 2 | 3 | 2 | 1.08 | 1.00 | 1 | 1 | 2 | 3.70 | 1 |  |
| 170 | PopI C |  | Uttar Pradesh, India | IIHR-592 | IC0321381 | *C. lanatus* | 3 | 2 | 2 | 3 | 3.80 | 273.40 | 2 | 1 | 3 | 1 | 0.80 | 0.40 | 1 | 1 | 1 | 4.50 | 1 | Field tolerant to GSB |
| 171 | PopI C |  | Rajasthan, India | IIHR-593 | IC0590087 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.38 | 274.13 | 2 | 1 | 3 | 4 | 1.16 | 1.00 | 4 | 2 | 1 | 4.84 | 1 |  |
| 172 | PopI Admx |  | Uttar Pradesh, India | IIHR-594 | IC0321399 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.20 | 274.67 | 2 | 2 | 3 | 2 | 1.24 | 0.60 | 1 | 1 | 2 | 5.43 | 1 | Field tolerant to GSB |
| 173 | PopI Admx |  | Karnataka, India | IIHR-595 | IC0584139 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.40 | 275.08 | 2 | 2 | 1 | 2 | 1.46 | 1.00 | 1 | 3 | 2 | 4.20 | 1 |  |
| 174 | PopIIB |  | Nigeria | IIHR-545 | EC677195 | *C. mucospermus* | 3 | 2 | 1 | 3 | 4.56 | 242.22 | 2 | 2 | 3 | 5 | 0.43 | 0.75 | 4 | 3 | 1 | 2.91 | 1.5 |  |
| 175 | PopIIB |  | Nigeria | IIHR-546 | EC677158 | *C. mucospermus* | 3 | 2 | 1 | 3 | 5.20 | 242.97 | 2 | 1 | 3 | 5 | 0.50 | 1.00 | 4 | 4 | 2 | 3.32 | 2.5 | Field tolerant to GSB |
| 176 | PopIIB |  | South Africa | IIHR-547 | EC677134 | *C. mucospermus* | 3 | 2 | 1 | 3 | 4.67 | 243.63 | 2 | 1 | 3 | 5 | 0.54 | 0.75 | 4 | 4 | 2 | 3.50 | 3 |  |
| 177 | PopIIB |  | Zwimbabwe | IIHR-548 | EC677139 | *C. mucospermus* | 3 | 2 | 1 | 3 | 4.90 | 244.67 | 2 | 1 | 3 | 5 | 0.48 | 0.80 | 4 | 4 | 2 | 6.80 | 3 | Field tolerant to GSB |
| 178 | PopIIB |  | Botswana | IIHR-549 | EC677146 | *C. mucospermus* | 3 | 2 | 1 | 3 | 4.90 | 244.87 | 2 | 1 | 3 | 5 | 0.63 | 0.80 | 4 | 4 | 2 | 3.78 | 3 |  |
| 179 | PopII A |  | Mali | IIHR-550 | EC677169 | *C. mucospermus* | 3 | 2 | 2 | 3 | 4.67 | 224.70 | 2 | 2 | 3 | 5 | 1.33 | 0.60 | 4 | 1 | 3 | 4.00 | 3 |  |
| 180 | Overall admx |  | Senegal | IIHR-551 | EC677163 | *C. lanatus* | 3 | 2 | 2 | 3 | 4.60 | 245.93 | 2 | 2 | 3 | 4 | 0.92 | 1.00 | 4 | 1 | 2 | 5.07 | 2 |  |
| 181 | PopIIB |  | Gujarat, India | IIHR-552 | EC677151 | *C. mucospermus* | 3 | 2 | 1 | 3 | 4.90 | 246.60 | 2 | 1 | 3 | 5 | 1.18 | 0.80 | 4 | 1 | 2 | 4.75 | 3 | Field tolerant to GSB |
| 182 | PopI Admx |  | Senegal | IIHR-553 | EC677159 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.90 | 265.33 | 4 | 3 | 3 | 2 | 1.40 | 0.20 | 4 | 1 | 3 | 2.70 | 2.5 |  |
| 183 | PopI C |  | Nigeria | IIHR-554 | EC677186 | *C. lanatus* | 3 | 2 | 1 | X (2,3) | 3.80 | 248.40 | 2 | 2 | 3 | 3 | 1.56 | 1.00 | 4 | 1 | 1 | 3.63 | 1 | Field tolerant to GSB |
| 184 | PopI A |  | USA | IIHR-441 | EC797211 | *C. lanatus* | 3 | 2 | 1 | 1 | 4.40 | 177.17 | 2 | 1 | 3 | 2 | 1.73 | 0.60 | 4 | 1 | 2 | 5.80 | 1.5 | Field tolerant to GSB |
| 185 | PopI Admx |  | USA | IIHR-442 | EC797212 | *C. lanatus* | 3 | 2 | 1 | 2 | 5.10 | 177.33 | 4 | 1 | 3 | 2 | 1.40 | 0.33 | 4 | 1 | 2 | 5.00 | 1 |  |
| 186 | PopI A |  | USA | IIHR-443 | EC797213 | *C. lanatus* | 3 | 2 | 1 | 1 | 5.25 | 178.83 | 2 | 1 | 3 | 2 | 0.80 | 0.25 | 4 | 1 | 2 | 5.00 | 1 |  |
| 187 | Overall admx |  | USA | IIHR-452 | EC797222 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.67 | 186.00 | 4 | 1 | 3 | 2 | 3.20 | 1.00 | 4 | 2 | 2 | 7.00 | 2 |  |
| 188 | PopI A |  | USA | IIHR-453 | EC797223 | *C. lanatus* | 2 | 2 |  | 2 | 4.00 | 185.67 | 2 | 1 | 3 | 2 | 1.30 | 1.00 | 4 | 1 | 2 | 7.00 | 1 |  |
| 189 | PopI A |  | USA | IIHR-455 | EC797225 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.00 | 189.33 | 5 | 1 | 3 | 2 | 3.20 | 1.00 | 4 | 1 | 2 | 7.50 | 1 |  |
| 190 | PopI Admx |  | USA | IIHR-456 | EC797226 | *C. lanatus* | 3 | 2 | 2 | 2 | 8.00 | 192.33 | 6 | 1 | 3 | 2 | 3.20 | 0.50 | 4 | 1 | 2 | 7.10 | 1 |  |
| 191\* | PopI B |  | Uttar Pradesh, India | IIHR-469 | IC0550986 | *C. colocynthis* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 192 | PopI Admx | **Y** | Uttar Pradesh, India | IIHR-474 | IC0550991 | *C. lanatus* | 3 |  | 2 | 2 | 6.50 | 203.13 | 2 | 1 | 3 | 4 | 2.50 | 0.50 | 4 | 1 | 1 | 8.75 | 1 |  |
| 193\* | PopI Admx | **Y** | Uttar Pradesh, India | IIHR-476 | IC0550993 | *C. lanatus* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 194 | PopI C |  | Uttar Pradesh, India | IIHR-484 | IC0551002 | *C. lanatus* | 2 | 2 | 2 | 3 | 3.40 | 205.43 | 2 | 2 | 3 | 4 | 1.40 | 0.20 | 4 | 2 | 2 | 5.00 |  |  |
| 195 | PopI C | **Y** | Uttar Pradesh, India | IIHR-485 | IC0551003 | *C. lanatus* | 2 | 2 | 2 | 2 | 3.17 | 206.13 | 2 | 1 | 3 | 4 | 1.23 | 0.60 | 4 | 2 | 23 | 5.83 | 1 |  |
| 196 | PopI C |  | Uttar Pradesh, India | IIHR-486 | IC0551004 | *C. lanatus* | 3 | 2 | 2 | 2 | 4.00 | 206.67 | 2 | 2 | 3 | 4 | 0.83 | 0.80 | 4 | 2 | 2 | 5.35 | 1 | Field tolerant to GSB |
| 197 | PopI C |  | Uttar Pradesh, India | IIHR-487 | IC0551005 | *C. lanatus* | 3 | 2 | 2 | 2 | 4.29 | 207.29 | 2 | 2 | 3 | 4 | 1.23 | 1.20 | 4 | 2 | 3 | 10.00 | 1 | Field tolerant to GSB |
| 198 | PopI Admx |  | Uttar Pradesh, India | IIHR-488 | IC0551006 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.38 | 208.56 | 2 | 2 | 3 | 2 | 1.20 | 0.20 | 4 | 1 | 2 | 4.20 | 1 |  |
| 199 | PopI Admx | **Y** | Uttar Pradesh, India | IIHR-490 | IC0551008 | *C. lanatus* | 2 | 2 | 2 | 3 | 3.86 | 313.00 | 2 | 1 | 3 | 4 | 1.38 | 0.80 | 4 | 2 | 2 | 6.47 | 1 | Field tolerant to GSB |
| 200 | PopI Admx |  | Uttar Pradesh, India | IIHR-492 | IC0551010 | *C. lanatus* | 2 | 2 | 2 | 2 | 3.67 | 210.63 | 2 | 3 | 3 | 1 | 1.10 | 0.33 | 4 | 3 | 3 | 6.80 | 2 |  |
| 201 | PopI Admx | **Y** | Uttar Pradesh, India | IIHR-493 | IC0551011 | *C. lanatus* | 3 | 2 | 2 | 3 | 3.25 | 211.67 | 2 | 3 | 5 | 2 | 0.73 | 1.00 | 4 | 2 | 2 | 9.03 | 1 |  |
| 202 | PopI Admx |  | Uttar Pradesh, India | IIHR-495 | IC0551013 | *C. lanatus* | 3 | 2 | 2 | 2 | 3.88 | 213.33 | 2 | 2 | 3 | 2 | 1.00 | 1.30 | 4 | 3 | 3 | 7.10 | 2 |  |
| 203 | PopI C | **Y** | Uttar Pradesh, India | IIHR-496 | IC0551014 | *C. lanatus* | 3 | 2 | 1 | 3 | 5.00 | 213.50 | 2 | 2 | 3 | 4 | 0.60 | 0.33 | 4 | 2 | 3 | 7.00 | 2.5 |  |
| 204 | PopI C |  | Uttar Pradesh, India | IIHR-498 | IC0551016 | *C. lanatus* | 3 | 2 | 1 | 3 | 6.00 | 213.67 | 2 | 2 | 3 | 2 | 1.00 |  | 4 | 1 | 2 | 10.00 | 1.5 |  |
| 205 | PopI C |  | Uttar Pradesh, India | IIHR-578 | IC0583400 | *C. colocynthis* | 3 | 2 | 1 | 2 | 3.50 | 263.97 | 2 | 2 | 3 | 2 | 2.00 | 0.20 | 4 | 3 | 2 | 3.55 | 1 |  |
| 206 | PopI C | **Y** | India | IIHR-579 | IC0606686 | *C. lanatus* | 3 | 2 |  | X (2,3) | 3.90 | 264.63 | 2 | 2 | 3 | 1 | 0.10 | 0.20 | 4 | 1 | 2 | 6.80 | 1 |  |
| 207 | PopI C |  | Rajasthan, India | IIHR-580 | IC0281231 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.90 | 265.33 | 4 | 3 | 3 | 2 | 1.40 | 0.20 | 4 | 1 | 3 | 2.70 | 1 |  |
| 208 | PopI C |  | India | IIHR-581 | IC0605427 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.90 | 265.67 | 2 | 2 | 3 | 2 | 1.20 | 0.20 | 4 | 3 | 3 | 4.80 | 1 |  |
| 209 | PopI C |  | Uttar Pradesh, India | IIHR-582 | IC0321547 | *C. colocynthis* | 3 | 2 | 1 | 2 | 4.00 | 266.63 | 2 | 3 | 3 | 2 | 0.50 | 0.20 | 4 | 3 | 2 | 1.00 |  |  |
| 210 | Overall admx |  | India | IIHR-584 | IC0329639 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.89 | 268.00 | 2 | 1 | 3 | 4 | 2.10 | 0.20 | 4 | 3 | 2 | 2.10 |  | Field tolerant to GSB |
| 211 | PopI C |  | Rajasthan, India | IIHR-585 | IC0113139 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.10 |  | 2 | 3 | 3 | 1 | 1.50 | 0.40 | 4 | 2 | 2 | 5.05 | 2 |  |
| 212 | PopI Admx |  | India | IIHR-586 | IC0605423 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.00 | 269.83 | 2 | 3 | 3 | 1 | 1.20 | 0.40 | 4 | 2 | 3 | 2.00 | 1 | Field tolerant to GSB |
| 213 | PopI C |  | India | IIHR-597 | IC0605409 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.25 | 275.67 | 2 | 2 | 3 | 1 | 1.62 | 0.60 | 4 | 2 | 3 | 4.58 | 2 |  |
| 214 | PopI Admx |  | India | IIHR-603 | IC0399654 | *C. lanatus* | 3 | 2 | 2 | 2 | 3.57 | 281.88 | 2 | 1 | 3 | 2 | 0.63 | 0.75 | 4 | 3 | 1 | 3.55 | 1 |  |
| 215 | Overall admx |  | India | IIHR-604 | IC0605419 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.00 |  | 2 | 1 | 3 | 4 | 1.50 | 0.50 | 4 | 3 | 2 | 7.00 | 1 |  |
| 216 | PopIIB | **Y** | Uttar Pradesh, India | IIHR-605 | IC0550975 | *C. mucospermus* | 3 | 2 | 1 | 2 | 3.83 |  | 2 | 1 | 3 | 5 | 0.88 | 0.75 | 4 | 4 | 1 | 2.65 | 1 |  |
| 217 | PopII A | **Y** | Uttar Pradesh, India | IIHR-606 | IC0550977 | *C. mucospermus* | 3 | 2 | 1 | 3 | 5.63 | 186.20 | 2 | 1 | 5 | 5 | 0.43 | 0.40 | 4 | 4 | 1 | 4.20 | 2.5 |  |
| 218 | PopI Admx |  | Bangalore, Karnataka, India | IIHR-64 | Arka Manik | *C. lanatus* | 3 | 2 | 1 | 2 | 3.90 | 160.60 | 2 | 1 | 3 | 2 | 1.00 | 0.44 | 4 | 2 | 2 | 6.80 | 3 |  |
| 219 | PopII A |  | Mali | IIHR-517 | EC677169 | *C. mucospermus* | 3 | 2 | 2 | 3 | 4.67 | 224.70 | 4 | 2 | 3 | 5 | 1.33 | 0.60 | 4 | 1 | 3 | 4.00 | 1 | Field tolerant to GSB |
| 220 | PopII-Admx |  | USA | IIHR-518 | EC677177 | *C. mucospermus* | 3 | 2 | 1 | 3 | 6.89 | 225.13 | 2 | 1 | 3 | 5 | 0.82 | 0.75 | 4 | 9 | 2 | 3.26 | 2 | Field tolerant to GSB |
| 221 | PopIIB |  | Nigeria | IIHR-519 | EC677157 | *C. mucospermus* | 3 | 2 | 1 | 3 | 8.10 | 225.70 | 2 | 1 | 3 | 5 | 0.62 | 0.70 | 4 | 4 | 2 | 3.00 | 2.5 |  |
| 222 | PopII-Admx |  | USA | IIHR-520 | EC677173 | *C. mucospermus* | 3 | 2 | 2 | 3 | 7.40 | 225.83 | 2 | 1 | 3 | 5 | 0.94 | 0.70 | 4 | 4 | 2 | 3.45 | 2.5 |  |
| 223 | PopIIB |  | USA | IIHR-521 | EC677175 | *C. mucospermus* | 3 | 2 | 1 | 3 | 7.11 | 226.57 | 2 | 1 | 3 | 5 | 0.86 | 0.70 | 4 | 4 | 2 | 3.00 | 2.5 | Field tolerant to GSB |
| 224 | PopIIB |  | Senegal | IIHR-522 | EC677160 | *C. mucospermus* | 3 | 2 | 1 | 3 | 5.50 | 227.13 | 1 | 1 | 3 | 5 | 0.37 | 0.60 | 4 | 4 | 2 | 7.20 | 2.5 | Field tolerant to GSB |
| 225 | PopII A |  | Nigeria | IIHR-523 | EC677191 | *C. mucospermus* | 3 | 2 | 1 | 3 | 5.70 | 228.57 | 2 | 1 | 4 | 5 | 0.98 | 0.80 | 4 | 4 | 2 | 3.18 | 3 | Field tolerant to GSB |
| 226 | PopII A |  | USA | IIHR-524 | EC677201 | *C. mucospermus* | 3 | 2 | 1 | 3 | 5.40 | 228.87 | 2 | 1 | 5 | 5 | 0.88 | 0.60 | 4 | 9 | 1 | 7.23 | 3 | Field tolerant to GSB |
| 227 | PopII A |  | USA | IIHR-525 | EC677154 | *C. mucospermus* | 3 | 2 | 1 | 3 | 7.70 | 229.53 | 2 | 1 | 3 | 5 | 0.73 | 0.60 | 4 | 4 | 2 | 4.00 | 2.5 | Field tolerant to GSB |
| 228 | PopII-Admx |  | Nigeria | IIHR-526 | EC677192 | *C. mucospermus* | 3 | 2 | 1 | 3 | 6.60 | 229.48 | 2 | 1 | 3 | 5 | 0.48 | 1.00 | 4 | 4 | 2 | 3.38 | 2.5 | Field tolerant to GSB |
| 229 | PopI A |  | USA | IIHR-382 | EC794445 | *C. lanatus* | 3 | 2 | 1 | 2 | 5.30 | 135.77 | 6 | 1 | 3 | 2 | 1.83 | 0.60 | 4 | 1 | 4 | 5.20 | 3 |  |
| 230 | PopI A |  | USA | IIHR-383 | EC794446 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.90 | 136.30 | 4 | 1 | 3 | 1 | 0.60 | 1.00 | 4 | 3 | 2 | 4.20 | 1 |  |
| 231 | PopI Admx |  | USA | IIHR-385 | EC794448 | *C. lanatus* | 3 | 2 | 1 | 1 | 4.56 | 137.52 | 2 | 1 | 3 | 2 | 1.70 | 0.60 | 4 | 1 | 2 | 3.20 | 2.5 |  |
| 232 | PopI A |  | USA | IIHR-387 | EC794450 | *C. lanatus* | 3 | 2 | 2 | 2 | 4.71 | 138.90 | 6 | 1 | 3 | 2 | 1.60 | 0.60 | 4 | 2 | 2 | 7.20 | 1 |  |
| 233 | PopI Admx |  | USA | IIHR-388 | EC794451 | *C. lanatus* |  |  |  | 2 | 3.00 | 139.00 | 2 | 1 | 3 | 2 | 1.50 | 0.30 | 4 | 1 | 2 | 7.30 | 1.5 |  |
| 234 | PopI A |  | USA | IIHR-389 | EC794452 | *C. lanatus* | 3 | 2 | 1 | 2 | 5.56 | 140.52 | 2 | 1 | 3 | 2 | 1.40 | 0.60 | 4 | 3 | 2 | 6.00 | 1 |  |
| 235 | PopI Admx |  | USA | IIHR-390 | EC794453 | *C. lanatus* | 3 | 2 | 1 | 1 | 4.75 | 140.92 | 4 | 1 | 3 | 2 | 1.20 | 0.40 | 4 | 3 | 2 | 4.60 | 1 |  |
| 236 | PopI A |  | USA | IIHR-391 | EC794454 | *C. lanatus* | 3 | 2 |  | 2 | 4.63 | 141.54 | 2 | 1 | 3 | 2 | 1.20 | 0.20 | 4 | 2 | 2 | 4.80 | 1 |  |
| 237 | PopI A |  | USA | IIHR-392 | EC794455 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.70 | 142.23 | 2 | 1 | 3 | 2 | 1.90 | 0.40 | 4 | 1 | 2 | 6.80 | 1 |  |
| 238 | PopI A |  | USA | IIHR-393 | EC794456 | *C. lanatus* | 3 | 2 |  | 2 | 5.75 | 143.25 | 2 | 1 | 3 | 2 | 1.30 | 0.25 | 4 | 2 | 2 | 8.00 | 1 |  |
| 239 | PopI A |  | USA | IIHR-394 | EC794457 | *C. lanatus* | 3 | 2 | 1 | 1 | 4.00 | 143.33 | 6 | 1 | 3 | 2 | 2.00 | 0.20 | 4 | 1 | 2 | 3.00 | 1 |  |
| 240 | PopI A |  | USA | IIHR-395 | EC794458 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.14 | 144.05 | 4 | 1 | 3 | 2 | 1.10 | 0.20 | 4 | 2 | 2 | 3.50 | 1 |  |
| 241 | PopI A |  | USA | IIHR-396 | EC794459 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.44 | 144.81 |  |  |  |  |  |  |  |  |  | 1.90 | 1 |  |
| 242 | PopI A |  | USA | IIHR-397 | EC794460 | *C. lanatus* | 2 | 2 | 2 | 2 | 4.00 | 145.33 | 2 | 1 | 3 | 2 | 1.20 | 0.20 | 4 | 3 | 2 | 2.90 | 1 |  |
| 243 | PopI A |  | USA | IIHR-399 | EC794462 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.67 | 146.56 | 2 | 1 | 3 | 2 | 1.05 | 0.80 | 4 | 2 | 2 | 3.90 | 1.5 |  |
| 244 | PopI Admx |  | USA | IIHR-401 | EC794464 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.00 | 148.00 | 2 | 1 | 5 | 3 | 1.10 | 0.60 | 4 | 1 | 2 | 3.00 | 1 |  |
| 245 | PopI A |  | USA | IIHR-402 | EC794465 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.60 | 148.87 | 2 | 1 | 3 | 2 | 1.40 | 0.80 | 4 | 1 | 2 | 3.55 | 1 |  |
| 246 | PopI A |  | USA | IIHR-404 | EC794467 | *C. lanatus* | 3 | 2 | 2 | 2 | 4.38 | 150.13 | 2 | 1 | 3 | 2 | 1.13 | 0.60 | 4 | 1 | 2 | 2.40 | 1 |  |
| 247 | PopI A |  | USA | IIHR-405 | EC794468 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.30 | 150.77 | 2 | 1 | 3 | 2 | 1.58 | 0.60 | 4 | 2 | 2 | 3.10 | 1 |  |
| 248 | PopII A |  | USA | IIHR-407 | EC794470 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.86 | 151.95 | 2 | 1 | 5 | 2 | 1.37 | 0.60 | 4 | 2 | 2 | 2.50 | 1 |  |
| 249 | PopI A |  | USA | IIHR-440 | EC797210 | *C. lanatus* | 3 | 2 | 1 | 1 | 3.50 | 176.42 | 2 | 1 | 3 | 2 | 1.98 | 0.80 | 4 | 2 | 2 | 7.90 | 1 |  |
| 250 | PopI A |  | Nigeria | IIHR-537 | EC677166 | *C. mucospermus* | 3 | 2 | 1 | 3 | 4.44 | 236.63 | 2 | 1 | 3 | 5 | 0.74 | 0.75 | 4 | 4 | 1 | 5.00 | 1 | Field tolerant to GSB |
| 251 | PopII A |  | USA | IIHR-538 | EC677197 | *C. lanatus* | 3 | 2 | 1 | 3 | 4.70 | 237.50 | 2 | 2 | 3 | 5 | 0.46 | 0.90 | 4 | 9 | 1 | 5.00 | 2.5 | Field tolerant to GSB |
| 252 | PopI Admx |  | Nigeria | IIHR-539 | EC677153 | *C. lanatus* | 3 | 2 | 2 | 3 | 3.89 | 238.47 | 3 | 1 | 3 | 5 | 0.58 | 0.80 | 4 | 1 | 2 | 6.40 | 2.5 |  |
| 253 | PopI B |  | Botswana | IIHR-540 | EC677147 | *C. mucospermus* | 3 | 2 | 1 | 3 | 4.50 | 238.96 | 2 | 1 | 3 | 5 | 0.70 | 0.80 | 4 | 4 | 2 | 3.14 | 2 | Field tolerant to GSB |
| 254 | PopII A |  | USA | IIHR-541 | EC677168 | *C. mucospermus* | 3 | 2 | 1 | 3 | 5.40 | 239.73 | 2 | 1 | 3 | 5 | 0.15 | 0.40 | 4 | 4 | 2 | 7.00 | 3 |  |
| 255 | Overall admx |  | Nigeria | IIHR-542 | EC677196 | *C. mucospermus* | 3 | 2 | 1 | 3 | 4.89 | 240.30 | 2 | 2 | 3 | 5 | 0.33 | 0.60 | 4 | 4 | 2 | 6.60 | 3 | Field tolerant to GSB |
| 256 | Overall admx |  | Senegal | IIHR-543 | EC677162 | *C. mucospermus* | 3 | 2 | 1 | 3 | 5.20 | 240.85 | 2 | 2 | 3 | 5 | 0.86 | 0.60 | 4 | 1 | 2 | 3.80 | 3 | Field tolerant to GSB |
| 257 | Overall admx |  | Nigeria | IIHR-544 | EC677194 | *C. mucospermus* | 3 | 2 | 1 | 3 | 4.89 | 241.73 | 1 | 1 | 3 | 5 | 0.90 | 0.80 | 4 | 1 | 2 | 3.96 | 3 |  |
| 258 | PopII A |  | UP | IIHR-527 | IC550974 | *C. mucospermus* | 3 | 2 | 1 | 2 | 4.50 | 122.83 | 3 | 1 | 3 | 1 | 0.53 | 0.60 | 4 | 1 | 2 | 8.00 | 3 |  |
| 259 | PopII A |  | Nigeria | IIHR-528 | EC677199 | *C. mucospermus* |  |  |  | 2 | 4.70 | 123.57 | 1 | 3 | 3 | 5 | 0.86 | 0.88 | 1 | 1 | 1 | 3.69 | 1.5 | Field tolerant to GSB |
| 260 | PopII A |  | USA | IIHR-529 | EC677178 | *C. mucospermus* | 3 | 2 | 1 | 1 | 5.20 | 124.40 | 2 | 2 | 3 | 5 | 1.50 | 0.80 | 4 | 1 | 2 | 3.20 | 2 |  |
| 261 | PopII A |  | USA | IIHR-530 | EC677143 | *C. mucospermus* | 3 | 2 | 1 | 2 | 4.33 | 124.78 | 2 | 1 | 3 | 5 | 1.10 | 0.50 | 4 | 1 | 2 | 3.80 | 1 |  |
| 262 | PopII-Admx | **Y** | Gujarat, India | IIHR-531 | EC677131 | *C. mucospermus* | 3 | 2 | 1 | 2 | 4.30 | 125.43 | 2 | 2 | 5 | 5 | 1.58 | 0.70 | 4 | 4 | 2 | 2.70 | 3 |  |
| 263 | PopII-Admx |  | USA | IIHR-532 | EC677136 | *C. mucospermus* | 3 | 2 | 1 | 1 | 4.33 | 126.11 | 2 | 2 | 5 | 5 | 1.80 | 0.60 | 4 | 1 | 1 | 3.50 | 1 |  |
| 264 | PopII-Admx |  | USA | IIHR-533 | EC677176 | *C. mucospermus* | 3 | 2 | 1 | 2 | 4.75 | 126.92 | 2 | 2 | 5 | 5 | 1.50 | 0.65 | 4 | 1 | 2 | 5.40 | 1 |  |
| 265 | PopII A |  | USA | IIHR-534 | EC677184 | *C. mucospermus* | 3 | 2 | 1 | 2 | 4.89 | 127.63 | 4 | 2 | 3 | 5 | 1.98 | 1.00 | 1 | 3 | 2 | 4.10 | 1 |  |
| 266 | PopII A |  | Nigeria | IIHR-535 | EC677187 | *C. mucospermus* | 3 | 2 |  | 2 | 4.10 | 128.70 | 4 | 1 | 3 | 5 | 1.80 | 0.20 | 4 | 3 | 2 | 3.90 | 1.5 |  |
| 267 | PopII A |  | Nigeria | IIHR-536 | EC677170 | *C. mucospermus* | 3 | 2 | 1 | 1 | 4.44 | 130.15 | 2 | 1 | 3 | 5 | 2.23 | 0.80 | 4 | 3 | 2 | 3.80 | 1 | Field tolerant to GSB |
| 268 | PopI Admx |  | India | IIHR-567 | IC076317 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.44 | 256.56 | 2 | 1 | 3 | 5 | 0.70 | 1.00 | 4 | 3 | 2 | 3.20 | 1.5 |  |
| 269 | PopI Admx | **Y** | India | IIHR-568 | IC0605414 | *C. colocynthis* | 3 | 2 | 1 | 2 | 3.33 | 257.13 |  |  |  |  |  |  |  |  |  | 2.60 | 1 |  |
| 270 | Overall admx |  | India | IIHR-569 | IC0605429 | *C. colocynthis* | 3 | 2 | 1 | 2 | 3.67 | 258.04 | 2 | 3 | 3 | 1 | 0.20 | 0.25 | 4 | 1 | 2 | 3.50 | 2 |  |
| 271 | PopI Admx |  | India | IIHR-570 | IC0605413 | *C. lanatus* | 3 | 2 | 1 | 3 | 3.40 | 258.57 | 2 | 3 | 3 | 2 | 0.20 | 0.20 | 4 | 3 | 2 | 2.53 | 1 |  |
| 272 | PopI Admx |  | India | IIHR-571 | IC0605755 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.11 | 259.22 | 2 | 1 | 3 | 5 | 1.12 | 0.90 | 4 | 3 | 2 | 3.80 | 1 |  |
| 273 | PopI Admx |  | India | IIHR-572 | IC0605694 | *C. colocynthis* | 3 | 2 | 2 | 2 | 3.70 | 259.93 | 2 | 2 | 3 | 2 | 1.00 | 0.25 | 4 | 3 | 2 | 2.40 | 1.5 |  |
| 274 | PopI Admx |  | India | IIHR-573 | IC0605275 | *C. colocynthis* | 3 | 2 | 1 | 2 | 3.67 | 262.50 | 2 | 2 | 3 | 1 | 0.10 | 0.20 | 4 | 3 | 2 | 3.10 | 2 |  |
| 275 | Overall admx | **Y** | India | IIHR-574 | IC0605406 | *C. colocynthis* | 3 | 2 | 1 | 2 | 3.80 | 263.30 | 2 | 2 | 3 | 2 | 0.50 | 0.20 | 4 | 3 | 2 | 2.90 | 2 |  |
| 276 | PopI C |  | Bihar, India | IIHR-499 | IC0551017 | *C. colocynthis* | 3 | 2 | 1 | 2 | 4.50 | 214.56 |  |  |  |  |  | 1.00 |  |  |  |  |  |  |
| 277 | PopI C |  | India | IIHR-500 | IC0551018 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.00 | 215.22 | 2 | 3 | 3 | 4 | 1.00 | 0.75 | 4 | 1 | 3 | 5.20 |  |  |
| 278 | PopI B |  | India | IIHR-506 | IC0605434 | *C. lanatus* | 3 | 2 | 2 | 2 | 3.67 | 216.20 | 2 | 3 | 1 | 1 | 1.53 | - | 4 | 2 | 3 | 5.77 | 2 |  |
| 279 | Overall admx | **Y** | India | IIHR-508 | IC0605411 | *C. lanatus* | 3 | 2 | 2 | 2 | 4.60 | 217.60 | 2 | 3 | 3 | 2 | 1.95 | 0.40 | 4 | 3 | 3 | 5.10 | 1 |  |
| 280 | Overall admx |  | USA | IIHR-509 | EC677155 | *C. lanatus* | 3 | 2 | 2 | 3 | 4.40 | 219.23 | 2 | 2 | 3 | 2 | 1.20 | 0.40 | 4 | 2 | 2 | 8.90 | 1 |  |
| 281 | PopII A |  | Ghana | IIHR-510 | EC677165 | *C. mucospermus* | 3 | 2 | 2 | 3 | 4.80 | 219.37 | 2 | 1 | 3 | 4 | 0.80 | 0.40 | 4 | 2 | 2 | 3.10 | 2 | Field tolerant to GSB |
| 282 | PopII A |  | USA | IIHR-511 | EC677161 | *C. mucospermus* | 3 | 2 | 1 | 3 | 7.70 | 220.77 | 2 | 1 | 5 | 5 | 0.77 | 0.60 | 4 | 4 | 2 | 3.50 | 3 | Field tolerant to GSB |
| 283 | Overall admx |  | Senegal | IIHR-512 | EC677190 | *C. lanatus* | 3 | 2 | 1 | 3 | 6.10 | 221.17 | 2 | 1 | 3 | 2 | 0.88 | 0.70 | 4 | 9 | 2 | 3.30 | 2 | Field tolerant to GSB |
| 284 | Overall admx |  | Zambia | IIHR-513 | EC677148 | *C. mucospermus* | 3 | 2 | 1 | 3 | 8.30 | 222.17 | 2 | 2 | 3 | 5 | 0.72 | 0.90 | 4 | 4 | 2 | 3.10 | 3 | Field tolerant to GSB |
| 285 | PopII A |  | Zwimbabwe | IIHR-514 | EC677135 | *C. mucospermus* | 3 | 2 | 1 | 3 | 7.50 | 222.73 | 2 | 1 | 3 | 5 | 0.48 | 0.80 | 4 | 4 | 2 | 8.50 | 3 | Field tolerant to GSB |
| 286 | PopII A |  | South Africa | IIHR-515 | EC677132 | *C. mucospermus* | 3 | 2 | 1 | 3 | 8.50 | 222.22 | 2 | 1 | 3 | 5 | 0.52 | 0.70 | 4 | 4 | 2 | 4.04 | 3 | Field tolerant to GSB |
| 287 | PopII A |  | Zwimbabwe | IIHR-516 | EC677144 | *C. mucospermus* | 3 | 2 | 1 | 3 | 8.20 | 223.63 | 2 | 1 | 3 | 5 | 0.76 | 1.00 | 4 | 8 | 2 | 2.60 | 3 | Field tolerant to GSB |
| 288 | PopI Admx |  | Moldova | IIHR-303 | EC687911 | *C. lanatus* | 3 | 2 | 2 | X (2,3) | 5.20 | 83.07 | 2 | 1 | 3 | 2 | 0.92 | 0.80 | 4 | 2 | 3 | 8.20 | 3 | Field tolerant to GSB |
| 289 | PopIIB |  | Nigeria | IIHR-310 | EC687918 | *C. mucospermus* | 3 | 2 | 1 | 3 | 6.00 | 88.00 | 2 | 1 | 1 | 5 | 0.70 | 0.80 | 4 | 4 | 1 | 6.00 | 1 | Field tolerant to GSB |
| 290 | PopI Admx |  | Thailand | IIHR-314 | EC676831 | *C. lanatus* | 3 | 2 | 1 | 1 | 4.80 | 90.27 | 2 | 1 | 3 | 2 | 1.67 | 0.60 | 4 | 1 | 3 | 8.00 | 3 | Field tolerant to GSB |
| 291 | PopII-Admx |  | Thailand | IIHR-316 | EC676833 | *C. lanatus* | 2 | 2 | 1 | 2 | 3.40 | 91.13 | 2 | 2 | 3 | 1 | 0.85 | 0.40 | 1 | 1 | 3 | 6.20 | 1 |  |
| 292 | PopI Admx |  | Thailand | IIHR-317 | EC676836 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.80 | 91.93 | 3 | 1 | 5 |  | 1.75 | 0.40 | 4 | 3 | 1 | 6.60 | 1 |  |
| 293 | PopI Admx |  | Thailand | IIHR-320 | EC676839 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.75 | 93.92 | 2 | 1 | 3 | 2 | 1.40 | 0.25 | 4 | 1 | 2 | 6.30 | 1 |  |
| 294 | PopI Admx |  | Thailand | IIHR-323 | EC676843 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.20 | 95.73 | 2 | 4 | 3 | 1 | 1.00 | 0.20 | 4 | 3 | 3 | 7.10 | 1 |  |
| 295 | PopI B |  | Thailand | IIHR-325 | EC676845 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.33 | 97.44 | 2 | 1 | 3 | 2 | 0.87 | 0.60 | 4 | 2 | 3 | 7.00 | 1 |  |
| 296 | PopI C |  | Thailand | IIHR-337 | EC676859 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.80 | 105.27 | 2 | 1 | 3 | 1 | 2.04 | 0.60 | 4 | 2 | 2 | 7.30 | 1 | Field tolerant to GSB |
| 297 | PopI Admx |  | Thailand | IIHR-342 | EC676868 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.17 | 108.72 | 2 | 1 | 3 | 1 | 0.90 | 0.60 | 4 | 2 | 2 | 7.20 | 1 |  |
| 298 | PopI Admx |  | China | IIHR-351 | EC678822 | *C. lanatus* | 3 | 2 | 2 | 2 | 4.71 | 114.90 | 2 | 2 | 3 | 2 | 1.40 | 0.75 | 4 | 3 | 3 | 6.60 | 1 |  |
| 299 | PopI Admx |  | China | IIHR-352 | EC678823 | *C. lanatus* | 3 | 2 | 1 | 2 | 5.33 | 115.78 | 2 | 2 | 3 | 1 | 1.30 | 1.00 | 4 | 2 | 3 | 5.40 | 1 |  |
| 300 | PopI A |  | China | IIHR-353 | EC759804 | *C. lanatus* | 3 | 2 | 1 | 1 | 3.90 | 115.97 | 4 | 1 | 3 | 1 | 1.40 | 0.20 | 4 | 1 | 2 | 5.60 | 1 |  |
| 301 | PopI Admx |  | USA | IIHR-354 | EC759805 | *C. lanatus* | 3 | 2 | 2 | 2 | 5.00 | 117.00 | 5 | 1 | 3 | 1 | 1.65 | 0.40 | 4 | 1 | 2 | 5.30 | 1 |  |
| 302 | PopI A |  | USA | IIHR-356 | EC759807 | *C. lanatus* | 3 | 2 |  | 2 | 4.33 | 118.11 | 2 | 1 | 3 | 1 | 1.40 | 1.00 | 4 | 1 | 2 | 4.40 | 1 |  |
| 303 | PopI Admx |  | USA | IIHR-357 | EC794420 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.40 | 118.80 | 2 | 1 | 3 | 1 | 1.08 | 0.80 | 4 | 1 | 2 | 5.80 | 1 |  |
| 304 | PopI Admx |  | USA | IIHR-358 | EC794421 | *C. lanatus* | 3 | 2 | 2 | 2 | 4.78 | 119.59 | 2 | 1 | 3 | 1 | 1.28 | 0.63 | 4 | 2 | 2 | 5.10 | 1 |  |
| 305 | PopI Admx |  | USA | IIHR-359 | EC794422 | *C. lanatus* | 3 | 2 | 1 | 1 | 3.30 | 119.77 | 2 | 2 | 3 | 1 | 1.75 | 0.80 | 4 | 1 | 23 | 3.30 | 1 |  |
| 306 | PopI Admx |  | USA | IIHR-360 | EC794423 | *C. lanatus* | 3 | 2 |  | 2 | 4.40 | 120.80 | 2 | 1 | 3 | 2 | 1.14 | 1.00 | 4 | 1 | 2 | 2.90 | 1 | Field tolerant to GSB |
| 307 | PopI A |  | USA | IIHR-362 | EC794425 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.60 | 122.20 | 6 | 1 | 3 | 2 | 2.08 | 1.00 | 4 | 1 | 2 | 3.30 | 1 |  |
| 308 | PopI A |  | USA | IIHR-365 | EC794428 | *C. lanatus* | 3 | 2 | 1 | 1 | 5.20 | 124.40 | 2 | 2 | 3 | 1 | 1.50 | 0.80 | 4 | 3 | 2 | 3.20 | 1 |  |
| 309 | PopI A |  | USA | IIHR-366 | EC794429 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.33 | 124.78 | 2 | 1 | 3 | 1 | 1.10 | 0.50 | 4 | 1 | 2 | 3.80 | 1 |  |
| 310 | PopI A |  | USA | IIHR-367 | EC794430 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.30 | 125.43 | 2 | 2 | 5 | 1 | 1.58 | 0.70 | 4 | 2 | 2 | 2.70 | 3 |  |
| 311 | PopI Admx |  | USA | IIHR-368 | EC794431 | *C. lanatus* | 3 | 2 | 1 | 1 | 4.33 | 126.11 | 2 | 2 | 5 | 2 | 1.80 | 0.60 | 4 | 1 | 3 | 3.50 | 1 |  |
| 312 | PopI Admx |  | USA | IIHR-369 | EC794432 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.75 | 126.92 | 2 | 2 | 3 | 1 | 1.50 | 0.65 | 4 | 2 | 2 | 5.40 | 1 |  |
| 313 | PopI Admx |  | USA | IIHR-370 | EC794433 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.89 | 127.63 | 4 | 2 | 3 | 1 | 1.98 | 1.00 | 1 | 3 | 2 | 4.10 | 1 |  |
| 314 | PopI Admx |  | USA | IIHR-374 | EC794437 | *C. lanatus* | 3 | 2 | 1 | 1 | 4.44 | 130.15 | 2 | 1 | 3 | 2 | 2.23 | 0.80 | 4 | 3 | 2 | 3.80 | 1.5 | Field tolerant to GSB |
| 315 | PopI Admx |  | USA | IIHR-377 | EC794440 | *C. lanatus* | 3 | 2 | 1 | X (1,2) | 5.20 | 132.40 | 3 | 1 | 3 | 2 | 0.78 | 0.80 | 2 | 1 | 2 | 3.80 | 1.5 |  |
| 316 | PopI B |  | USA | IIHR-380 | EC794443 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.40 | 134.13 | 2 | 1 | 3 | 1 | 0.60 | 0.75 | 4 | 1 | 1 | 4.40 | 1 |  |
| 317 | PopI C |  | USA | IIHR-381 | EC794444 | *C. lanatus* | 3 | 2 | 1 | 2 | 6.20 | 135.40 | 2 | 1 | 3 | 2 | 2.03 | 0.60 | 4 | 3 | 2 | 4.90 | 1 |  |
| 318 | PopI C |  | USA | IIHR-339 | EC677154 | *C. lanatus* | 3 | 2 | 1 | 2 | 3.40 | 249.13 | 2 | 3 | 3 | 1 | 1.00 | 0.20 | 4 | 3 | 3 | 4.00 | 1 |  |
| 319 | Overall admx |  | USA | IIHR-556 | EC677179 | *C. mucospermus* | 3 | 2 | 1 | 3 | 5.20 | 249.90 | 2 | 2 | 3 | 5 | 0.94 | 0.70 | 4 | 4 | 2 | 3.20 | 1 | Field tolerant to GSB |
| 320 | PopIIB |  | Nigeria | IIHR-557 | EC677182 | *C. mucospermus* | 3 | 2 | 1 | 3 | 5.40 | 250.30 | 2 | 2 | 3 | 5 | 0.84 | 1.00 | 4 | 4 | 2 | 3.70 | 3 | Field tolerant to GSB |
| 321 | PopIIB |  | USA | IIHR-558 | EC677172 | *C. mucospermus* | 3 | 2 | 1 | 3 | 5.70 | 251.03 | 2 | 2 | 3 | 5 | 1.22 | 1.00 | 4 | 4 | 2 | 3.00 | 3 | Field tolerant to GSB |
| 322 | PopIIB |  | USA | IIHR-559 | EC677198 | *C. mucospermus* | 3 | 2 | 1 | 3 | 4.90 | 251.60 | 2 | 2 | 3 | 5 | 1.03 | 0.80 | 4 | 4 | 2 | 5.30 | 3 | Field tolerant to GSB |
| 323 | PopIIB |  | USA | IIHR-560 | EC677181 | *C. mucospermus* | 3 | 2 | 1 | 3 | 5.10 | 252.00 | 2 | 2 | 3 | 5 | 1.53 | 0.60 | 4 | 4 | 2 | 2.73 | 2.5 | Field tolerant to GSB |
| 324 | PopII-Admx |  | USA | IIHR-561 | EC677174 | *C. mucospermus* | 3 | 2 | 1 | 3 | 4.80 | 252.50 | 2 | 2 | 3 | 5 | 0.38 | 0.80 | 4 | 4 | 2 | 3.13 | 3 |  |
| 325 | PopI Admx |  | India | IIHR-563 | IC0408362 | *C. colocynthis* | 3 | 2 | 1 | 3 | 3.50 | 254.76 |  |  |  |  |  |  |  |  |  | 4.20 | 3 |  |
| 326 | PopI B | **Y** | India | IIHR-564 | IC0605428 | *C. colocynthis* | 3 | 2 | 1 | 2 | 3.90 | 255.15 | 2 | 3 | 3 | 1 | 0.50 | 0.20 | 4 | 1 | 2 | 3.54 | 2 |  |
| 327 | PopI Admx |  | Rajasthan, India | IIHR-566 | IC0523054 | *C. lanatus* | 3 | 2 | 1 | 2 | 4.29 | 255.78 | 2 | 3 | 3 | 3 | 1.33 | 0.60 | 4 | 3 | 2 | 6.40 | 1 |  |
| 328 | PopI Admx |  | Bangalore, Karnataka, India | NS-450 | NS-450 (F1) | *C. lanatus* | 3 | 2 | 2 | 3 | 4.65 | 260.91 | 4 | 1 | 3 | 1 | 2.96 | 0.96 | 1 | 1 | 2 | 9.62 | 1.5 |  |
| 329 | PopI C |  | Bangalore, Karnataka, India | NS-20 | NS-20 (F1) | *C. lanatus* | 3 | 2 | 1 | 2 | 4.13 | 196.54 | 4 | 5 | 1 | 1 | 2.65 | 1.20 | 1 | 1 | 1 | 10.20 | 1 |  |
| 330 | PopI Admx |  | Bangalore, Karnataka, India | IIHR- 608 | PS-298 (F1) | *C. lanatus* | 2 | 2 | 2 | 3 | 4.22 | 212.23 | 6 | 1 | 3 | 1 | 3.65 | 1.14 | 1 | 2 | 2 | 11.33 | 1 |  |
| 331 | PopI Admx |  | Bangalore, Karnataka, India | IIHR-611 | NS-295 (F1) | *C. lanatus* | 3 | 2 | 1 | 3 | 4.66 | 250.64 | 6 | 1 | 3 | 1 | 3.88 | 1.11 | 1 | 2 | 3 | 9.80 | 1 |  |
| 332 | PopI A |  | Bangalore, Karnataka, India | IIHR-610 | AYUSH (F1) | *C. lanatus* | 3 | 2 | 1 | 2 | 3.97 | 241.32 | 6 | 1 | 3 | 1 | 4.12 | 1.00 | 1 | 1 | 2 | 9.68 | 1 |  |
| 333 | PopI C |  | Bangalore, Karnataka, India | IIHR-609 | SUPRIT (F1) | *C. lanatus* | 3 | 2 | 1 | 3 | 5.22 | 268.25 | 3 | 1 | 5 | 1 | 4.54 | 1.00 | 1 | 1 | 3 | 10.40 | 1 |  |
| 334 | PopI C |  | Bangalore, Karnataka, India | IIHR- 607 | SUMAN (F1) | *C. lanatus* | 3 | 2 | 1 | 2 | 4.88 | 259.54 | 6 | 5 | 1 | 1 | 2.68 | 1.60 | 1 | 2 | 7 | 11.10 | 1 |  |
| 335\* | PopI C |  | Bangalore, Karnataka, India | IIHR-19 | IIHR-19 | *C. lanatus* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 336 | PopI Admx | **Y** | Bangalore, Karnataka, India | IIHR-86 | Arka Muthu | *C. lanatus* | 1 | 1 | 2 | 2 | 2.21 | 80.87 | 2 | 5 | 1 | 1 | 2.85 | 1.75 | 1 | 2 | 7 | 9.80 | 1 |  |

\*-Denotes phenotypic evaluation data not available

Admx: Admixture

X-Denotes segregation for the trait

GSB- Gummy Stem Blight

The codes for each state of different characters are presented at Table S4 and is also available at http://www.nbpgr.ernet.in:8080/PGRPortal/(S(zwot3rj5ejigs1ycmr5n2r2k))/EvaluationDataAvailability.aspx)

**Table S2: Population-wise summary of the genotypes belonging to different species**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Population** | **Species** | | | | **Total** |
| ***C. lanatus*** | ***C. amarus*** | ***C. colocynthis*** | ***C. mucospermus*** |
| Total accessions | 241 | 2 | 44 | 49 | 336 |
| Pop I overall | 228 | 1 | 40 | 2 | 271 |
| Pop I-A | 30 | 0 | 0 | 1 | 31 |
| Pop I-B | 32 | 0 | 22 | 1 | 55 |
| Pop I-C | 51 | 0 | 3 | 0 | 54 |
| Population I admixture | 115 | 1 | 15 | 0 | 131 |
| Pop II overall | 4 | 0 | 0 | 42 | 46 |
| Pop II-A | 2 | 0 | 0 | 19 | 21 |
| Pop II-B | 1 | 0 | 0 | 16 | 17 |
| Population II admixture | 1 | 0 | 0 | 7 | 8 |
| Overall admixture | 9 | 1 | 4 | 5 | 19 |

**Table S3: Population-wise summary of the genotypes based on their area of collection**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Population | Source of accessions | | | | | | | | | | | | | | | Total |
| India | USA | Thailand | China | Japan | Taiwan | Senegal | Zambia | Ghana | Zimbabwe | South Africa | Botswana | Mali | Moldova | Nigeria |
| Total accessions | 213 | 77 | 8 | 3 | 2 | 1 | 5 | 1 | 1 | 3 | 2 | 2 | 2 | 1 | 15 | 336 |
| Pop I overall | 197 | 55 | 7 | 3 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 271 |
| Pop I-A | 3 | 26 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 31 |
| Pop I-B | 50 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 55 |
| Pop I-C | 46 | 5 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 54 |
| Population I admixture | 98 | 21 | 5 | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 131 |
| Pop II overall | 7 | 18 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 2 | 1 | 2 | 0 | 10 | 46 |
| Pop II-A | 2 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 2 | 0 | 4 | 21 |
| Pop II-B | 4 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 5 | 17 |
| Population II admixture | 1 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 8 |
| Overall admixture | 9 | 4 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 19 |

**Table S4: Minimal descriptor for watermelon from ICAR-NBPGR used to characterize the germplasm accessions in the present study**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Descriptor** | **No. of observation** | **Method of data recording** | **\_**  **Stage of the crop** |
| 1 | Early plant vigour | Visual observation | 1 - Poor, 2 - Intermediate, 3 - Good, 4 - Other | To be recorded after 30 days of sowing |
| 2 | Plant growth habit | Five random plants | 1- Bushy 2- Runner | To be recorded on fully grown plant |
| 3 | Leaf blade | Visual observation | 1-Weak, 2-Intermediate, 3- Strong | Degree of secondary lobbing, to be observed at the largest leaf between the fifteenth and twentieth node of the main stem |
| 4 | Hermaphroditic flowers | Visual observation | 1- Absent, 2- Present | To be recorded at flowering stage |
| 5 | Vine length (cm) | 5 random plants | Quantitative | To be measured at peak fruiting stage from ground level to the tip of main stem on 5 random plants |
| 6 | Number of primary branches | 5 random plants | Quantitative | To be recorded as average of same 5 Plants at the end of Flowering Stage. The branches that arises from the main vine/stem is known as primary branch. |
| 7 | Number of fruits per plants | 5 random plants | Quantitative | To be recorded at maturity stage |
| 8 | Fruit weight (g) | 5 random Fruits | Quantitative | To be recorded at maturity stage |
| 9 | Fruit shape | Visual observation | 1-Flattened, 2-Round, 3-Broad elliptical, 4- Elliptical, 5- Pyriform, 6-Oblong | To be recorded at marketable stage |
| 10 | Fruit yield per plant (kg) | 5 random plants | Quantitative | To be recorded as average of cumulative yield of all pickings in same 5 plants |
| 11 | Predominant (or ground) fruit skin | Visual observation | 1 -Light green, 2-Medium green, 3-Dark green, 4-White, 5-­Yellow, 6-Brown, 7-Other | To be observed at maturity stage |
| 12 | Secondary fruit skin colour pattern | Visual observation | 1-No secondary fruit skin colour, 2-Solid, 3-Stripped, 4-Spotted, 5-Mixed, 6-other | To be observed at maturity stage |
| 13 | Fruit skin stripe colour | 5 random plants | 1 -Light, 2-Medium green, 3-Dark green, 4-White, 5-yellow, 6- brown, 7-other | To be recorded at maturity and an average of 5-10 random mature fruits |
| 14 | Flesh colour | Visual observation | 1 -Red, 2-Pink, 3-Canary yellow, 4-Salmon yellow, 5-White, 6-Mixed, 7-Orange, 8-Green, 9-Other | Colour of ripe fruit flesh |
| 15 | Distribution of grooves | Visual observation | 1-Absent, 2-At basal half, 3-At apical half, 4-On whole fruit | To be recorded at maturity stage |
| 16 | Fruit bitterness | 5 random fruits | 1-Absent, 2-Slightly, 3-Bitter | To be recorded at maturity and an average of 5-10 random mature fruits . |
| 17 | Seed colour | Visual observation | 1-Brown, 2-Dark Brown, 3-Tan, 4- White, 5- Other | To be recorded on fully dried suds |

**Figure S1: Two different methods for determining optimal K value**

(A)-Ad hoc procedure described by Pritchard et al. (2000). K value is increasing continuously without any abrupt change.

(B)-The second order statistics developed by Evanno et al. (2005). Highest peak at K=2 implying two distinct populations.

**Figure S2: Allelic diversity among random 96 *Citrullus* sp. accessions genotyped with a SSR marker (BVWS00228)**

