

Ashif

1. Chinese potato family- **Labiatae** (*Coleus parviflorus*, Edible part- **Adventitious tuberous roots**)
2. Lima bean pole type varieties- **Challenger, King of garden, Florida butter, Karolina butter**
3. Lima bean semi pole types are – **Wilbur and hopi**
4. Sponge gourd chromosome number- **$2n=2x=26$**
5. Rhubarb basic chromosome number - **$x=11, 4x=44$**
6. Rhubarb origin – **Siberia** (*Rheum rhaponticum*, Polygonaceae, Edible part ; **Petiole**)
7. Cabbage isolation distance for certified seed – **1000 m** (for foundation seed 1600 m)
8. Brinjal and Okra seed yields are – **100 and 200 kg**
9. Seed yield of Amaranthus is – **200 kg/ha**
10. Carrot and beet root isolation distance – **Carrot F/S-1000 m, C/S-800 m ; Beet root F/S-1600 m, C/S -800 m**
11. Which type of cracking severe in tomato – **Radial**
12. Pure line method of selection followed in – **Self pollinated crops**
13. Classification of plants self, cross and often cross based on – **Mode of pollination**
14. Tomato flower cluster – **Truss**
15. Capsaicin measuring units are – **SHU (Scovonelle Heat Units)**
16. Optimum temperature requirement for pollination in tomato is - **$21^{\circ} C$**
17. Red colour of tomato is due to – **Lycopene (this pigment production is highest at 21 to $24^{\circ} C$ ($70-75^{\circ} F$) if above $27^{\circ} C$ drops rapidly)**
18. For lycopene development which spectrum of light is required – **Red light**
19. Tomato variety **Hissar anmol** crossing – **Hissar arun X *Lycopersicon hirsutum* ssp *glabratum* (Resistance to leaf curl virus)**

20. From India, Cherry tomatoes are exported to which countries – **European countries**
21. Yellow streaks disorder occurred in – **Cassava**
22. Seed rate of Leek – **5 to 7 kg**
23. Asparagus belongs to the family – **Liliaceae, Monocotyledon**
24. Amaranthus is – **Dicotyledon crop, C4 plant**
25. Thermo dormancy found in – **Lettuce**
26. Delaying germination occur in which crop – **Asparagus/Onion/Parsley/Lettuce**
27. Vector of tomato spotted wilt virus is – **Thrips**
28. Puffiness is physiological disorder of – **Tomato**
29. Catface is physiological disorder of – **Tomato**
30. Fruit of Okra botanically – **Capsule**
31. Blossom end rot of water melon is due to – **Ca deficiency, irregular moisture supply and high temperature**
32. Shallow rooted (30-60 cm) vegetable crops are – **Cole crops, Potato, Radish, Cowpea and Garlic**
33. Very shallow vegetables (15-30 cm) are – **Onion, Small Radish and Lettuce**
34. High inbreeding depression found in – **Carrot**
35. The product fufu is made from – **Elephant foot yam**
36. The edible part of Jerusalem artichoke – **Tuber**
37. Edible part of Knoll-Khol – **Swollen stem above the cotyledons**
38. High productivity vegetable crop in India - **Cassava**
39. Rhubarb is also called as – **Pie plant**
40. Basella is also called as – **Poi or Malabar night shade plant**
41. TIBA is a – **It is a synthetic Auxin transport inhibitor**
42. Highest fruit set in tomato can be achieved by the spraying of – **PCPA**
43. Example for day neutral plant – **French bean** (Pole type French beans are LDP)
44. Drumstick is highly cross pollinated crop is due to – **Protogyny nature**
45. Chekurmanis is also called – **Multi vitamin greens**
46. Male sterility found in brinjal – **GMS**
47. Who got Padma shri award in agriculture sector during the year 2016 – **Shri Subhash Palekar (Organic farming) (Maharashtra)**
48. Amaranthus can be pollinated by – **Wind pollination**

49. Calabrese is a variety of – **Broccoli**
50. White tipen symptoms in onion is due to – ***Alternaria porri* where as incase of leek *Phytophthora porri***
51. Seed colour of sponge gourd – **White**
52. Flower colour of bottle gourd – **White**
53. In Brinjal maximum fruit set percent takes place on – **Long and medium styled flowers of brinjal**
54. Heterostyly found in – **Brinjal**
55. Flower of Brinjal – **Hermaphrodite**
56. Potato scab (*Streptomyces scabies*) occurs in – **Alkaline soils** (The organism can survive indefinitely in slightly alkaline soils, but is relatively scarce in highly acid soils, enters through lenticels)
57. Beet root scab (*Streptomyces scabies*) occurs in - **Alkaline soils**
58. Black leg of cabbage occurs in – **Saline soils**, (*Phoma lingam* (Control; Hot water treatment of seeds at 50⁰ C (122⁰ F) for 20 to 25 minutes)
59. Black rot of cabbage caused by - (*Xanthomonas campestris* pv. *Campestris*, Young leaf with **V-shaped lesion characteristic of black rot symptoms**)
60. Club root of cabbage (*Plasmodiophora brassicae*, soil borne fungus) occurs in – **Acidic solis** (Control; Liming of soil, Raising of soil P^H above 7.2)
61. Mannogalacton compound found in which crop – **Cluster bean**
62. Optimum temperature for potato tuberization – **20⁰ C**
63. Working principle of zero energy cool chamber – **Evaporative cooling**
64. In zero energy cool chamber which type of tomatoes are stored – **Red ripen tomato/ Green tomato/ Mature green**
65. SSR, RFLP markers are which type – **PCR Based Markers**
66. Pusa jyothi is the variety of – **Palak**
67. Plant protection famers right act was came in the year – **2001**
68. VAM is the – **Phosphate solublizing bacteria**
69. Rhizobium is the symbiotic bacteria found in – **Legumes**
70. Pusa chetki is the – **Early maturing variety of Radish** (Note ; tropical types are early maturing, cool season types are late maturing)
71. Ascorbic acid deficiency – **Scurvy**
72. Potato seed plot technique was developed by – **Puskarnath (1965)**
73. True potato seed was developed by – **Dr. S. Ramanujam**

74. Optimum conditions for potato flowering – **Low temperature and high humidity**
75. In brinjal parthenocarpic can be achieved by spraying of – **2,4-D @ 2 ppm**
76. Potato storage temperature and period – **34 weeks at 1-3^o C**
77. Development of embryo without fertilization – **Apomixis**
78. Genetic constitution of muskmelon sex forms – **Monoecious- A-G, Gynomonocious-A-gg, Andromonocious-aaG, Hermaphrodite- aagg**
79. Cole crops U's triangle was given by – **“Nagaharu U” (1935)**
80. The book “Cole crops” was written by - **Nieuwhof**
81. Genome sizes of vegetable crops

Onion	15000 Mbp
Pepper	3000 Mbp
Brinjal	1100 Mbp
Tomato	950 Mbp
Potato	840 Mbp
Beet root	760 Mbp
Cole crops	600 Mbp
Turnip	500 Mbp
Carrot	470 Mbp
Cucumber	370 Mbp
Chinese cabbage	365 Mbp

{(1st Sequenced vegetable is water melon-375 Mbp (2012) and 1st Sequenced tuber vegetable is Potato 844 Mbp (2011)}

82. Jade cross is the Japanese F-1 hybrid of – **Brussels sprouts**
83. Optimum temperature requirement for cauliflower curd initiation – **17-20^o C**
84. Progenitors of vegetable crops

Sweet corn	<i>Zea mays ssp. Mexicana</i>
Cole crops(Ancestor)	<i>Brassica oleracea var. sylvestris</i> (Colewort)
Okra	<i>Abelmoschus tuberculatus</i> (2n=58, origin-North India, U.P)
Brinjal	<i>Solanum incanum</i> (Sodom Apple)
Tomato	<i>Solanum lycopersicum var. cerasiformae</i> (Cherry tomato)
Cucumber	<i>Cucumis sativus var. hardwickii</i>

Water melon	<i>Citrullus colocynthis</i>
Bitter gourd	<i>Momordica charantia</i> var. <i>abbreviata</i>
Snake gourd	<i>Trichosanthes lobata</i>
Ridge gourd and Smooth gourd	<i>Luffa graveolens</i>
Summer squash	<i>Cucurbita fratena</i>
Pea	<i>Pisum elatius</i>
French bean	<i>Phaseolus aborigineus</i>
Cluster bean	<i>Cyamopsis senegalensis</i>
Cowpea	<i>Vigna unguiculata</i> var. <i>momensii</i>
Onion	<i>Allium vavilovii</i>
Leek and Kurrat	<i>Allium ampeloprasum</i>
Garlic	<i>Allium longicupis</i>
Radish	<i>Raphanus sativus</i> f. <i>raphanistroides</i>
Beet root	<i>Beta vulgaris</i> ssp. <i>Maritima</i>
Palak	<i>Beta vulgaris</i> var. <i>Maritima</i>
Sweet potato	<i>Ipomoea trifida</i>
Lettuce	<i>Lactuca serricola</i>
Globe artichoke	<i>Cynara cardunculus</i>
Spinach	<i>Spinacia tetrandra</i> (Ancestor)

85. Multiple disease resistant varieties in Cucurbits- **Cucumber-Poinsettia, Watermelon- Arka manik**
86. Ethrel used for the production of - **Female flowers**
87. AgNO₃ used for the production of - **Male flowers**
88. White spines are present on - **Slicing cucumber**
89. Black spines are present on - **Pickling cucumber**
90. TSS of Musk melon ranges from - **12 to 17%**
91. TSS of Water melon ranges from - **8 to 12%**
92. Seed rates of different Cucurbits-

Cucumber	2.5-3.5 kg/ha
Water melon	3.5-5 kg/ha
Musk melon	3-7 kg/ha
Bottle gourd	3-4 kg/ha

Ridge gourd	3.5-5 kg/ha
Sponge gourd	2.5-3.5 kg/ha
Pumpkin	1-5 kg/ha

93. Examples for Kharif season onions – **Arka Kalyan, Agrifound Dark Red, Baswant-180, N-53 and N-2-4-1** (For both Kharif and Rabi seasons - Arka Niketan)
94. Onion varieties suitable for export, particularly to Malaysia and Singapore – **Arka Bindu and Agrifound Rose**
95. Maturity indices of Rabi season onion – **1 week after 50-70% neck fall stage**
96. Transgenic varieties in all vegetable crops-

Tomato	Flavr Savr	1994	Calgene company	Shelf life
	Endless summer	1995	DNA plant tech	Shelf life
Potato	New leaf	1995	Monsanto Co.	Bt gene (resistance to Colorado potato beetle)
	New leaf plus	1998	Monsanto Co.	Resistance to Bt gene and potato leaf roll virus (PLRV)
	Maximize	1995	CIBA-GEIGY	Bt gene
	Freedom II	1995	Ashgrow seeds	Resistance to viruses
	Elizabeth	2010	Monsanto Co.	Resistant to Colorado beetle
Summer squash	Freedom			Resistance to zucchini virus

97. Scientific name of Queens land arrow root is – ***Canna edulis/Canna indica***
98. ETL (Economic threshold level) of thrips in Onion – **5 thrips/100 leaves**
99. ETL (Economic threshold level) of whiteflies in Okra – **10 whiteflies/100 leaves**
100. ETL (Economic threshold level) of Aphids in potato- **20 aphids/100 compound leaves**
101. Lettuce types with examples-

Leaf types	Slobolt, Chinese yellow
Butter head types	White Boston, Big boston, Mary King

Stem types	Celtuce
Crisp head (Most common grown lettuce)	Great lakes

102. Gold fleck/Golden flake is the disorder of –**Tomato** (Due to Low K:Ca ratio and Excess of Ca oxalate)
103. Kharif onion harvested at – Since tops do not fall, soon after the colour of leaves changes to slightly yellow and tops starts drying the bulbs are harvested
104. In Brinjal Vitamin B more in leaves and fruits, while Vitamin C more in Leaves
105. Arka Samrat and Arka Rakshak are MDR varieties of -**Tomato** (ToLCV, BW, EB)

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