



Cultivated plants in Ahmedabad city and its vicinity, Gujarat, India

KEYWORDS

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ABSTRACT Ahmedabad is situated in Central Gujarat, it is a largest city of Gujarat state located on Sabarmati river. The Floral diversity is highly diversified in vegetation and has rich number of floristic composition due to topography, climate and edaphic factors which are favourable for such luxurious vegetation. Apart from the much needed afforestation, there is an imperative need for growing as many plants as possible, whether economical or ornamental, in home garden in parks and other public gardens and in wastelands, riverbanks to restore the environment's natural balance to save the mankind from the impending catastrophe. Present paper deals with the cultivated plants of Ahmedabad city and its vicinity. The present study shows that 93 plant species (72 Dicots, 21 Monocots), 78 genera (59 Dicots, 190 Monocots) and 30 families (23 Dicots, 7 Monocots) are grown as agricultural plant species. These plants are grown as per the need and the demands of the society (for instance, cereals, pulses, vegetables, condiments, oil, fiber and beverages).

Introduction:

Ahmedabad is situated in Central Gujarat; it is a largest city of Gujarat state. It lies between 22°55' 35"36' and 23°07' 51"44' North latitude and 72°28' 41"95' and 72°41' 19"59' East longitudes.

The Ahmedabad municipal corporation declared the city as megacity and built up Sardar Patel ring road on periphery of the city. Except the peripheral agricultural land, rest part is the city area. It covers 10,000 square kilometer and circumference of the Sardar Patel ring road is 70 kilometer. Due to urbanization construction of buildings, factories, road side development etc activities rapidly decreasing the agricultural land. For centuries, almost 5000 (approx.) plants have been used for food, but hardly a 20 today feed the world's population (Nagar et al. 2002).

Saxton and Sedgwick (1918 and 1922) studied the plants of North Gujarat. Sutaria (1958), Gandhi (1958), Bhatt (1992), Patel (2010) carried out Floristic study as well as listed out agricultural important crop plant of Ahmedabad and its surroundings. The present paper is there for based on field work carried out during the year 2013 with a few frequent observations in city and vicinity to incorporate data of cultivated plants.

Methodology

Field work

The result embodied in this work based on study and collections during 2013 through well planned explorations in these areas. Field work was carried out in all seasons. During collection trips plants were collected in different developmental stages and exhaustive field notes were taken. Different characters such as, habit, habitat, abundance, color and fragrance of the flower, etc. were noted in the field diary from time to time. The areas explored were divided into smaller sectors, because my emphasis was on intensive rather than extensive explorations. The help of Floristic key of Cooke (1908), Shah (1978), Bailey (1968) and Bhatt (1992).

Observation:

List of cultivated plants in study area is given below:

1. BRASSICACEAE

(1) *Brassica campestris* L. (2) *Brassica oleracea* L. var. *botrytis* (3) *Brassica oleracea* L. var. *capitata* (4) *Lepidium sativum* L. (5) *Raphanus caudatus* L. (6) *Raphanus sativus* L.

2. MALVACEAE

(7) *Abelmoschus esculentus* L. (8) *Gossypium barbadense* L. (9) *Gossypium herbaceum* L. (10) *Hibiscus sabdariffa* L.

3. RUTACEAE

(11) *Atalantia monophylla* DC. (12) *Citrus limon* (L.) Burm.f. (13) *Citrus maxima* (Burn.) Merr. (14) *Citrus medica* L. (15) *Murraya koenigii* (L.) Streng

4. AMPELIDACEAE

(16) *Vitis vinifera* L.

5. FABACEAE

(17) *Arachis hypogaea* L. (18) *Cajanus cajan* (L.) Millsp (19) *Cicer arietinum* L. (20) *Cyamopsis tetragoloba* (L.) Taut. (21) *Dolichos trilobus* L. (22) *Lablab purpureus* (L.) Sweet. (23) *Medicago sativa* L. (24) *Phaseolus vulgaris* L. (25) *Pisum sativum* L.

(26) *Stylosanthes mucronata* Willd. (27) *Trigonella foenum-graecum* L (28) *Vigna aconitifolia* (Jacq.) Marechal. (29) *Vigna unguiculata* (L.) Walp. (30) *Vigna angularis* (Willd.) Ohwi.

6. MIMOSACEAE

(31) *Desmanthus virgatus* (L.) Willd

7. COMBRETACEAE

(32) *Terminalia catappa* L.

8. MYRTACEAE

(33) *Eucalyptus globules* Labill. (34) *Psidium guajava* L.

9. PUNICACEAE

(35) *Punica granatum* L.

10. CARICACEAE

(36) *Carica papaya* L.

11. CUCURBITACEAE

(37) *Citrullus lanatus* (Thunb.) (38) *Citrullus vulgaris* var. *fitulosus* Duth. (39) *Cucumis melo* L. (40) *Cucumis sativus* L. (41) *Cucurbita maxima* Duch. (42) *Lagenaria leucantha* (Duch.) Rusby. (43) *Luffa acutangula* (L.) Roxb. var. *acutangula*. (44) *Luffa cylindrica* (L.) M. (45) *Momordica charantia* L. (46) *Trichosanthes dioica* Roxb.

12. APIACEAE

(47) *Anethum graveolens* L. (48) *Coriandrum sativum* L. (49) *Cuminum cyminum* L.

(50) *Daucus carota* L. (51) *Foeniculum vulgare* Mill. (52) *Trachyspermum ammi* (L.) Sprague.

13. SAPOTACEAE

(53) *Manilkara zapota* (L.) Van.

14. CONVULVULACEAE

(54) *Ipomoea batatas* (L.) Lam.

15. SOLANACEAE

(55) *Capsicum annum* L. (56) *Capsicum annum* L. var. *grossa* Sendt. (57) *Capsicum annum* L. var. *longum* Sendt. (58) *Capsicum frutescens* L. (59) *Lycopersicon lycopersicum* L. (60) *Nicotiana tabacum* L. (61) *Solanum melongena* L. (62) *Solanum tuberosum* L.

16. PEDALIACEAE

(63) *Sesamum indicum* L.

17. ACANTHACEAE

(64) *Adhatoda vasica* (L.) Nees.

18. LAMIACEAE

(65) *Mentha spicata* L.

19. PLANTAGINACEAE

(66) *Plantago ovata* Forsk.

20. AMARANTHACEAE

(67) *Amaranthus hybridus* L.

21. CHENOPODIACEAE

(68) *Beta vulgaris* L. (69) *Spinacia oleracea* L.

22. BASELLACEAE

(70) *Basella rubra* L.

23. EUPHORBACEAE

(71) *Emblica officinalis* Gaertn. (72) *Ricinus communis* L.

24. ZINGIBERACEAE

(73) *Curcuma aromatica* Salisb. (74) *Curcuma domestica* Val.

25. MUSACEAE

(75) *Musa paradisiaca* L.

26. DIOSCOREACEAE

(76) *Dioscorea alata* L.

27. LILIACEAE

(77) *Allium cepa* L. (78) *Allium sativum* L.

28. ARECACEAE

(79) *Cocos nucifera* L.

29. ARACEAE

(80) *Colocasia esculenta* (L.) Shoot

30. POACEAE

(81) *Avena sterilis* L. var. *culta* (82) *Bambusa arudinacea* (Retz.) Willd. (83) *Cenchrus australis* Roth. (84) *Chloris gayana* Kunth. (85) *Echinochloa frumentacea* Link. (86) *Hordeum vulgare* L. (87) *Oryza sativa* L. (88) *Paspalum scrobiculatum* L. (89) *Pennisetum typhoides* (Burm.f.) Stapf. (90) *Saccharum officinarum* L. (91) *Sorghum bicolor* (L.) Monech. (92) *Triticum aestivum* L. (93) *Zey mays* L.

Result and Discussion:

The present study shows that 93 plant species (72 Dicots, 21 Monocots), 78 genera (59 Dicots, 190 Monocots) and 30 families (23 Dicots, 7 Monocots) are grown as agricultural plant species. These plants are grown as per the need and the demands of the society (for instance, cereals, pulses, vegetables, condiments, oil, fiber and beverages).

Majority of the farmers grow *Pennisetum typhoides* (Burm.f.) Stapf. (Bajara), *Triticum aestivum* L. (Wheat), *Oryza sativa* L. (Paddy) as a cereal crops. *Cajanus cajan* (L.) Millsp (Tuver) and *Vigna aconitifolia* (Jacq.) Marechal. (Math) as a Pulses crops. While *Brassica oleracea* L. var. *botrytis* (Flower cabbage), *Brassica oleracea* L. var. *capitata* (Cabbage), *Lagenaria leucantha* (Duch.) Rusby. (Bottle Gourd), *Lycopersicon lycopersicum* L. (Tomato) *Solanum melongena* L. (Brinjal) *Solanum tuberosum* L. (Potato) as vegetable crops.

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