

Extracts from Surapala's Vrikshayurveda (The Science of Plant Life by Surapala)

On Soil

35. Arid, marshy, and ordinary are the three types of land. It is further subdivided into six types by colour and savour.

36. Black, white, pale, dark, red, and yellow are the colours and sweet, sour, salty, pungent, bitter, and astringent are the tastes by which land is subdivided.

37. Land with poisonous element, abundance of stones, ant hills, holes, and gravel and having no accessibility to water is unfit for growing trees.

38. Bluish like sapphire, soft like a parrot's feather, white like conch, jasmine, lotuses, or the moon, and yellow like heated gold or blooming champaka is the land recommended for planting.

39. Land, which is even, has accessibility to water, and is covered with green trees is good for growing all kinds of trees.

40. Arid and marshy land is not good. Ordinary land is good as all kinds of trees grow on it without fail.

41. Panasa, lakuca, tala, bamboo, jambeera, jambu, tilaka, vata, kadamba, amrata, kharjura, kadali, tinisa, mrdvi, ketaki, narikela, etc. grow on a marshy land.

42. Sobhanjana, sriphala, saptaparna, sephalika, asoka, sami, karira, karkandhu, kesara, nimba, and saka grow well on an arid land.

43. Bijapuraka, punnaga, champaka, amra, atimuktaka, priyangu, dadima, etc. grow on an ordinary type of land.

On Propagation

45. Vanaspati, druma, lata, and gulma are the four types of plants. They grow from seed, stalk, or bulb. Thus the planting is of three kinds.

46. Those which bear fruits without flowers are vanaspati (types); those which bear fruits with flowers are druma (types).

47. Those which spread with tendrils are lata (types) (creepers). Those which are very short but have branches are gulma (types) (bushes).

48-49. Jambu, champaka, punnaga, nagakesara, tamarind, kapittha, badari, bilva, kumbhakari, priyangu, panasa, amra, madhuka, karamarda, etc. grow from seeds. Tambuli, sinduvara, tagara, etc. grow from stalks.

50. Patala, dadimi, plaksa, karavira, vata, mallika, udumbara kunda, etc. grow from seeds as well as from stalks.

51. Kumkuma, ardra, rasona, alukanda, etc. grow from bulbs. Ela, padma, utpala, etc. grow from seeds as well as from bulbs.

52. Seed is extracted from dried fruits, which become ripe in the natural course and season. It is then sprinkled

68. After the ash is naturally cooled and removed, kunapa water (liquid manure) should be sprinkled and the pits should be filled with good earth.

69. Sowing seeds for makanda, dadima, kusmanda, and alambuka is good but planting is even better.

70. In fertile lands, which are used excessively, seeds of trapusa or of other vegetables are sown intermittently.

71. Here (in these fields), saffron, maruwaka, and damanaka are similarly grown in a small carry (?).

72. Large seeds should be sown singly but smaller ones should be sown in multiples. The seed of naranga should be sown in a slanting position with hand.

73. The seeds of phanijhaka (maruwaka) should be mixed with earth and then water mixed with cow dung should be sprinkled gradually and gently.

74-75. Smear with the pulp of a plantain ripened naturally and dried in the sun, a rope of the stalk of sastika (a rice variety that matures in 60 days) should be laid in the pits intermittently. Sprinkled with little water continuously in the hot days, it yields without fail sprouts blue like tamala.

76. The stalk should be eighteen angula, not too tender nor too hard. Half of it should be smeared with plenty of cow dung and then (it) should be planted with three-fourth part in the pit and should be sprinkled with water mixed with soft sandy mud.

77. The lower part of the stalks of satapatrika should be half-ripened and then in the month of Kartika (post-rainy season) should be planted in a carry and drenched with water for about two months.

78. When they are covered with leaves they should be uprooted and transplanted wherever desired in the month of Asadha (beginning of rains).

79-80. The branches of dadima and karavira should be bent and planted applying enough cow dung at the root. They should be watered regularly for two months. After the leaves start growing they should be cut in the middle.

81. Bulbs should be planted in pits measuring one forearm-length, breadth, and depth- and filled with mud mixed with thick sand.

82. Kadali should be planted after smearing the root profusely with cow dung. It should be planted in the pit along with the root and should be watered well.

83. Small trees should be transplanted by daytime at the proper directions when they are one forearm tall. The roots should be smeared with honey, lotus-fibre, ghee, and bidanga and then planted in proper pits along with the earth.

84. Big trees should be similarly transplanted with their roots covered during evening after reciting the following mantra the previous day.

87. Ksirika, tuta, dadimi, bakula, etc. should be planted in the month of Sravana (midst of rainy season). Rajakosa, amra, lakuca, etc. should be planted in the month of Bhadrapada (when rains are receding).

On Treatment

187. The diseases of the kafa type can be overcome with bitter, strong, and astringent decoctions made out of panchamula (roots of five plant species – sriphala, sarvatobhadra, patala, ganikarika, and syonaka) with fragrant water.

188. For warding off all kafa type of diseases, the paste of white mustard should be deposited at the root and the trees should be watered with a mixture of sesame and ashes.

189. In case of trees affected by the kafa disease, earth around the roots of the trees should be removed and fresh, dry earth should be replaced for curing them.

190. A wise person should treat all types of trees affected by the pitta type of diseases with cool and sweet substances.

191. When watered by the decoction of milk, honey, yastimadhu, and madhuka, trees suffering from pitta type of diseases get cured.

192. Watered with the decoctions of fruits, triphala, ghee, and honey the trees are freed of all diseases of the pitta type.

193. To remove insects both from the roots and branches of the trees, wise men should water the trees with cold water for seven days.

194. The worms can be overcome by the paste of milk, kunapa water, and cow dung mixed with water and also by smearing the roots with the mixture of white mustard, vaca, kusta, and ativisa.

195. The worms accumulated on trees can be treated quickly by smoking the tree with the mixture of white mustard, ramatha, vidanga, vaca, usana, and water mixed with beef, horn of a buffalo, flesh of a pigeon, and the powder of bhillata (bhallataka ?).

196. Anointing with vidanga mixed with ghee, watering for seven days with salt water, and (applying) ointment made out of beef, white mustard, and sesame destroy the worms, insects, etc.

197. Creepers eaten away by insects should be sprinkled with water mixed with oil cake. The insects on the leaves can be destroyed by sprinkling the powder of ashes and brick-dust.

198. A wound caused by insects heals if sprinkled with milk after being anointed with a mixture of vidanga, sesame, cow's urine, ghee, and mustard.

199. Trees suffering from (damage due to) frost or scorching heat should be externally covered. Sprinkling with kunapa water and milk is also advisable.

200-201. The broken trees should be smeared with the paste of the bark of plaksa and udumbara mixed with ghee, honey, wine, and milk and the broken parts should be firmly tied together with the rope of a rice stalk. Fresh soil should then be filled in the basin around the trees, sprinkled immediately with the milk of buffalo and flooded with water. Thus they recover.

203. If the branches fall off, the particular spot should be anointed with the mixture of honey and ghee and sprinkled over by milk and water so that the tree will have its branches reaching the sky.

204. If the branches are burnt they should be cut off and the particular spots should be sprinkled with water and grape, crystalline sugar, and barley (and then watered with the same ?).

239. The white flowers of a tree turn into a golden colour if the tree is watered with the mixture of turmeric powder, kimsuka, cotton seed, manjista, and lodhra.

240. The white flowers of a tree turn into a golden colour if it is smeared at the roots with the mixture of manjista, darada, milk, kanksi (kind of fragrant earth), and flesh of a pigeon.

241. Trees watered continuously with the liquid of triphala, barley, mango seed, and indigo; and also filled at the root with the powder of the same mixture produce fruits resembling collyrium (see anjana).

242. Trees treated with water and paste containing the mixture of barley, kimsuka, manjista, turmeric, and sesame and also smeared with the same paste bear red fruits.

243. Trees watered and smeared at roots with the mixture of the bark of the salmali tree, turmeric, indigo, triphala, kusta, and liquor bear fruits having the shades of a parrot.

244. Trees watered after being sprinkled at the root with the mixture of indigo, turmeric, lodhra, vara (triphala), sesame, asana, kasisa and yasti – all powdered together – produce fruits of golden colour.

245. Bakula trees blossom forth producing lots of champaka flowers if continuously fed with fresh water after filling the bottom with plenty of mud mixed with kalaaya and the skin of a python or snake.

246. Plantain trees create wonder by producing pomegranate fruits if fed by water mixed with the urine of a hog and ankolha.

247. A castor tree produced from a seed cultured by the marrow of a boar, treated further by the process in the previous verse, produces karavella fruits.

248. Fragrance of the blossom can be changed by filling (the base near) the roots of the trees with the earth scented with the desired fragrance and then fed with water mixed with jalada, mura, nata, valaka, and patraka.

249. All types of flowering plants produce excellent fragrance if earth strongly scented by their own flowers is filled around the base (of the trees) and then fed with water mixed with musta, mura, nata leaves, and wine.

250. The same treatment used in the evening at their blossoming time along with fat, milk, blood, and kusta intensifies the natural fragrance of the blossoms of punnaga, naga, bakula, etc.

251. A big and strong mud pot should be filled with the mixture of mud and plenty of beef; and the karavira plant should be grown there with effort by watering profusely with cow dung and good quality beef.

252. The above stated plant of karavira should then be shifted to a pit, previously prepared by filling with cow bones, well-burnt ashes and then wetted by water mixed with beef. Thereafter, the plant should be fed with plenty of water mixed with beef. So treated, it is transformed into a creeper to blossom profusely and perennially.

253. A tamarind plant is grown into an excellent creeper if fed with water, mixed with the powder of triphala.

Source: Sadhale, Nalini (Tr.). **Surapala's Vrikshayurveda (The Science of Plant Life by Surapala)**. Agri-History Bulletin No.1. Asian Agri-History Foundation