

A Terminology for the Coconut Root (Wilt) Disease

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Abstract

Coconut root (wilt) disease has been referred to by various authors under different names. The variations in the name have created confusion among readers and reviewers to mistake the disease for other disorders in the coconut palm. A list of all such names used in the literature hitherto is given in alphabetical order. A chronological order of the variations is cited. Suitability of each name is discussed. From among the available names, coconut root (wilt) disease is chosen and recommended for use by all workers for the sake of uniformity, until such time as a new name can justifiably replace it.

Coconut root (wilt) disease has been referred to by various authors by different names. There are instances of the same author (s) having used different names to denote the disease on different occasions. The confusion that is likely to arise in the minds of readers as a result of this is sought to be remedied in this note through a citation and discussion on the suitability of the various names hitherto used in the publications.

Maramarosch (1964) listed the synonyms, which were, however, not exhaustive.

1. Coconut palm disease in Travancore: Butler (1908).
2. Coconut wilt disease in India : Holmes, Lal, and Shanta (1965).
3. Coconut (wilt) disease : Summanwar *et al.* (1969).
4. Indian root (wilt) : Davis (1966).
5. *Kattu* (meaning wind) : Verghese (1934).
6. *Kattuveezhcha* (Malayalam term meaning wind-borne) : Sreedharan (1941).
7. Kerala wilt : Pieris (1960, Personal communication).
8. Kerala wilt : Maramarosch (1964).
9. Kerala root (wilt) disease of coconut : Weischer (1967).

10. New Disease of coconut : Kunjan Pillai (1911).
11. Root disease of coconut : Verghese (1934) (translated in Malayalam as *Verucheeyal* and *Verurogam*)
12. "Root" disease of coconut : Sankarasubramoney, Pandalai, and Menon (1954)
13. Root rot : Maramarosch (1964)
14. Root (wilt) of coconut : Srivastava, Shekhawat, and Rao (1969)
15. "Root" (wilt) disease of coconut in Travancore—Cochin : Verghese, Sankarasubramoney, and Menon (1957)
16. Root (wilt) disease of coconut in Kerala : Lal (1966; 1969)
17. Root (wilt) disease of South India : Menon (1961)
18. Root—wilt in Kerala : Davis (1970)
19. (Root) wilt of Kerala : Vijayan, Natarajan, and Krishnamurthy (1973)
20. *Thengurogam* (=coconut palm disease) : Anonymous (1914)
21. Travancore disease : Butler (1908)
22. *Vasantha* (=plague) : Verghese (1934)
23. *Verucheeyal* (=root rot) : (Malayalam translation of root disease) Menon (1947)
24. *Verurogam* (Malayalam equivalent of root disease) : Menon (1953)
25. Wilt disease (root disease) of coconut : Verghese (1934)
26. Wilt (root disease) disease of coconut in Travancore and Cochin : Menon and Nair (1949).
27. "Wilt" disease of coconut : Menon and Nair (1951)
28. Wilt or root disease of coconut : Menon and Nair (1951)
29. 'Wilt' or 'root' disease : Davis (1953)
30. Wilt (root) disease of coconut palm : Radha and Menon (1954)
31. (Wilt) disease of coconut palm : Ramadasan (1967)

Most of these names have been employed by several workers but the earliest available record of each name alone has been cited here. The chronology and suitability of each name are discussed below:

Butler (1908) reported on the coconut palm disease in Travancore (now part of Kerala) and referred to it in the text of his report as Travancore disease. Kunjan Pillai (1911) reported on a "new disease" of coconut which appeared in isolated pockets of the then Travancore state between 1874 and 1884 and was perhaps justified in calling it so, as the disease was unfamiliar then. Today, it is a century old and the term may not be any more appropriate. Verghese (1934) pointed out that the coconut palm disease of Travancore was not a specific disease, but consisted of different diseases like bud rot, leaf rot, leaf blight, etc. and discussed how investigations of Butler had led to the disease being called the root disease, under which name similar diseases were then known in Sri Lanka and West Indies. He concluded that later research had thrown doubt on the correctness of this appellation. He also

listed the names under which the disease was known till then both in the local language (Malayalam) and in English, viz., *vasantha* (=plague) in the northern and *kattu* (=wind) in the southern parts of the state; coconut palm disease (translated in Malayalam as *thengurogam*, Anonymous, 1914) and root disease; and indicated his preference for the term wilt disease as a more appropriate one under the then available knowledge on the nature of the disease. He had adopted the name as early as 1930 from Nowell, a West Indies worker, who had suggested it in 1924 for a similar affliction in his country.

It appears that the different diseases of coconut were not clearly distinguished from one another especially in the early days of investigations, least so the relation between leaf rot and root (wilt) disease, as is known today. Sreedharan (1941) explained how *kattuveezhcha*, a Malayalam term meaning wind-borne, came to be used to denote leaf rot. The term is quite apt for that disease as the spores of the causal fungus *Helminthosporium halodes Bipolaris hq̄lodes* (Drechs) are carried through wind (Menon and Nair, 1948). But later, *kattuveezha* came to be used for coconut root (wilt) disease, obviously because leaf rot and coconut root (wilt) diseases were then not considered separate entities. Verghese (1934) differentiated leaf rot which was prevalent generally in all localities where root disease of coconut occurred. Menon and Nair (1948) pointed out the confusion among early investigators about the symptoms of leaf rot and root disease of coconut (translated in Malayalam as *verucheeyal*, Menon, 1947 and *verurogam*, Menon, 1953). Rotting of roots and drooping and yellowing of leaves, among others, have been pointed out as the more common symptoms of coconut root (wilt) disease, while rotting of leaves characterized leaf rot. Symptomatology later brought out that, of the three foliar symptoms of the disease, viz., flaccidity, yellowing, and marginal necrosis of leaflets, flaccidity is the initial and diagnostic symptom of coconut root (wilt) disease (Radha and Lal, 1972). Radha and Lal (1969) pointed out that in a significantly higher percentage, leaf rot was superimposed on coconut root (wilt) diseased palms. Root rot has been described as a symptom of coconut root (wilt) disease but not used to designate the disease, as quoted by Maramarosch (1964). John (1950) used the term root rot to denote 'anabe roga' (*Ganoderma lucidum*).

The name of a disease is very often associated with the place of its occurrence. Since the name of the State changed as a result of political reorganization of the states in India, the name of the disease also got a wide range of variations. The erstwhile Travancore and Cochin states first got amalgamated as Travancore-Cochin state, and then reorganized as the present Kerala state. Hence, references to the disease as of Travancore (Butler, 1908), Travancore and Cochin (Menon and Nair, 1949), Travancore-Cochin (Menon and Nair, 1951) etc., cannot hold good any longer. Even a reference to Kerala (Maramarosch, 1964; Lal, 1966,

1969 ; Weischer, 1967 ; Vijayan *et al.*, 1973) cannot stand now since Gopinathan Pillai *et al.* (1972) had located gardens in Tamil Nadu having this disease. Naming the disease by terms like root (wilt) disease of southern India (Menon, 1961), Indian root (wilt) (Davis, 1966), coconut wilt disease in India (Holmes *et al.*, 1965) is also inappropriate since a wilt disease of coconut dissimilar to coconut root (wilt) disease has been reported from Tamil Nadu (India) by Vijayan *et al.* (1973). Mentioning the places of occurrence of the disease after its name can, however, be meaningful when different diseases are referred to under identical names like coconut wilt of Esswquibo and Pomiroon ; coconut wilt of Sarawak, Malaysia ; and coconut wilt of Tamil Nadu.

All the names so far used can be grouped into three major suggestions, root disease ; wilt disease ; and root (wilt) /wilt (root) disease. Among these groups, minor variations have caused apparent differences in the name of the disease by different workers emphasising the symptom which appeared to them to be most important.

The name of a disease becomes very meaningful if it can bring out either the etiology or symptoms. The name *Kera wilt* (Pieris, 1960, personal discussion) is suggestive of the type.

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