

## IV. Published reports under the project

### Reports on rice viruses

1. Hayashi, T. (1982). Purification of rice transitory yellowing virus. *Ann. Phytopath. Soc. Japan* 48: 389.
2. Hayashi, T. and Minobe, Y. (1983). Protein composition of rice transitory yellowing virus. *Ann. Phytopath. Soc. Japan* 49: 431.
3. Hayashi, T. and Minobe, Y. (1984). Method for the assay of rice transitory yellowing virus by the use of concanavalin A. *Ann. Phytopath. Soc. Japan* 50: 438.
4. Hayashi, T., Nakajima, T. and Minobe, Y. (1984). Characterization of the oligosaccharide of rice transitory yellowing virus envelope G protein. *Ann. Phytopath. Soc. Japan* 50: 135.
5. Hibi, T., Omura, T. and Saito, Y. (1984). Double-stranded RNA of rice gall dwarf virus. *Ann. Phytopath. Soc. Japan* 47: 412.
6. Hibi, T., Omura, T. and Saito, Y. (1984). Double-stranded RNA of rice gall dwarf virus. *Journal of general Virology* 65: 1585-1590.
7. Hibino, H. and Kimura, I. (1981). Detection of rice ragged stunt virus in viruliferous insects. *Ann. Phytopath. Soc. Japan* 47: 418.
8. Hibino, H., Iwasaki, M. and Izumi, K. (1982). Virus-like particles associated with rice grassy stunt diseased rice. *Ann. Phytopath. Soc. Japan* 48: 388.
9. Hibino, H. and Kimura, I. (1982). Detection of rice ragged stunt virus in insect vectors by enzyme linked immunosorbent assay. *Phytopathology* 72: 656-659.
10. Hibino, H., Usugi, T., Omura, T., Shobara, K. and Tsuchizaki, T. (1983). Filamentous nucleoprotein obtained from grassy stunt diseased root of rice, structure of rice stripe virus and their serological relationship. *Ann. Phytopath. Soc. Japan* 49: 433-434.
11. Hibino, H., Cabauatan, P. Q., Omura, T. and Tsuchizaki, T. (1983). Purification and serological properties of rice grassy stunt virus 2. *International Rice Research Newsletter* 8(6): 11-12.
12. Hibino, H., Usugi, T. and Omura, T. (1983). Morphology and serological relationship of grassy stunt-associated filamentous nucleoprotein and rice stripe virus. *International Rice Research Newsletter* 8(1): 9-10.
13. Hibino, H. (1983). Transmission of two rice tungro-associated viruses and rice waika virus from doubly or singly infected source plants by leafhopper vectors. *Plant Disease* 67: 774-777.
14. Inoue, H., Omura, T., Morinaka, T., Putta, M., Chettanachit, D., Parejarearn, A., Disthaporn, S. and Kadkao, S. (1980). A new record of rice transitory yellowing virus in northern Thailand. *International Rice Research Newsletter* 5(2): 11.
15. Inoue, H., Omura, T., Morinaka, T., Saito, Y., Putta, M., Chettanachit, D., Parejarearn, A. and Disthaporn, S. (1980). Occurrence of rice transitory yellowing virus in Thailand. *Ann. Phytopath. Soc. Japan* 46: 412-413.
16. Inoue, H. and Omura, T. (1982). Transmission of rice gall dwarf virus by the green rice leafhopper. *Plant Disease* 66: 57-59.
17. Inoue, H. and Omura, T. (1982). The situation of the study of disease and insect pests of rice in Nepal. *Nekken Shuho* 42: 15-21.
18. Morinaka, T. (1981). Rice virus diseases occurring in Thailand. *Shokubutsu*

- Boeki (Plant Protection) 35(4): 149-154 (with Figures, in Japanese).
19. Morinaka, T., Chettanachit, D., Putta, M., Parejarearn, A. and Disthaporn, S. (1981). *Nilaparvata bakeri* transmission of rice ragged stunt. International Rice Research Newsletter 6(5): 12-13.
  20. Morinaka, T. (1982). Rice virus diseases in Thailand—Gall dwarf and ragged stunt —. Kokusai Noringyo Kyoryoku (International Cooperation of Agriculture and Forestry) 4(4): 110-113 (in Japanese).
  21. Morinaka, T., Putta, M., Chettanachit, D., Parejarearn, A., Disthaporn, S., Omura, T. and Inoue, H. (1982). Transmission of rice gall dwarf virus by cicadellid leafhoppers *Recilia dorsalis* and *Nephotettix nigropictus* in Thailand. Plant Disease 66: 703-704.
  22. Morinaka, T. (1982). Crop diseases in the humid tropics, with special reference to rice diseases in Thailand. In Present Situation and Problems in Tropical Agriculture. A commemorative publication for the 25th anniversary of Tropical Agriculture Research Association of Japan: 78-82 (in Japanese).
  23. Morinaka, T., Chettanachit, D., Putta, M., Parejarearn, A. and Disthaporn, S. (1983). Varietal difference in resistance to rice ragged stunt virus disease in Thailand. Japan. Jour. Tropic. Agric. 27(2): 87-91 (in Japanese with English summary).
  24. Morinaka, T., Putta, M., Chettanachit, D., Parejarearn, A., and Disthaporn, S. (1983). Transmission of rice ragged stunt disease in Thailand. JARQ 17(2): 138-144.
  25. Morinaka, T. and Kitsutaka, A. (1983). Thai rice varieties and their reaction to diseases and insect pests. Japan. Jour. Tropic. Agric. 27(4): 276-281 (in Japanese).
  26. Morinaka, T., Inoue, H., Omura, T., Saito, Y., Putta, M., Chettanachit, D., Parejarearn, A. and Disthaporn, S. (1980). Leafhopper transmission of rice gall dwarf disease in Thailand. Ann. Phytopath. Soc. Japan. 46(3): 421 (in Japanese).
  27. Morinaka, T., Putta, M., Chettanachit, D., Patirupanusara, T., Parejarearn, A., Disthaporn, S., Omura, T., Inoue, H. and Saito, Y. (1980). Rice gall dwarf, a new rice virus disease found in Thailand. The Second Southeast Asian Symposium on Plant Diseases in the Tropics, October 20-26, 1980, Bangkok, Thailand. Abstracts p.32.
  28. Morinaka, T., Putta M., Chettanachit, D., Parejarearn, A., and Disthaporn, S. (1982). Transmission of ragged stunt virus of rice plant in Thailand. Ann. Phytopath. Soc. Japan. 48(1): 78-79 (in Japanese).
  29. Morinaka, T., Tsurumachi, M., Putta, M., Chettanachit, D., Patirupanusara, T., Parejarearn, A., and Disthaporn, S. (1982). Relation between incidence of rice viruses and insect vectors in Thailand. Ann. Phytophth. Soc. Japan 48(3): 389 (in Japanese).
  30. Omura, T. and Saito, Y. (1979). Separation and purification of bacilliform particles from rice plants infected with rice tungro virus. Ann. Phytopath. Soc. Japan 45 (4): 564.
  31. Omura, T., Inoue, H., Morinaka, T. and Saito, Y. (1980). Rice gall dwarf disease found in Thailand. Ann. Phytopath. Soc. Japan 46: 412.
  32. Omura, T., Inoue, H., Thapa, U. B. and Saito, Y. (1981). Association of rice tungro spherical virus and rice tungro bacilliform virus with the disease in Janakpur, Nepal. International Rice Research Newsletter 6(6): 14.
  33. Omura, T., Morinaka, T., Inoue, H. and Saito, Y. (1981). Purification and characterization of rice gall dwarf virus. Ann. Phytopath. Soc. Japan 47: 411-412.

34. Omura, T., Inoue, H. and Saito, Y. (1982). Virus disease of rice in Nepal. *Ann. Phytopath. Soc. Japan* 48: 130-131.
35. Omura, T., Inoue, H., Pradhan, R. B., Thapa, B. J. and Saito, Y. (1982). Identification of rice dwarf virus in Nepal. *JARQ* 15: 218-220.
36. Omura, T., Kimura, I., Tsuchizaki, T. and Saito, Y. (1982). Inoculation of rice gall dwarf virus to monolayer cells of vector insect. *Ann. Phytopath. Soc. Japan* 48: 389-390.
37. Omura, T., Morinaka, T., Inoue, H. and Saito, Y. (1982). Purification and some properties of rice gall dwarf virus, a new Phytoreovirus. *Phytopathology* 72: 1246-1249.
38. Omura, T., Hibino, H., Usugi, T., Inoue, H., Morinaka, T., Tsurumachi, S., Tsuchizaki, T. and Saito, Y. (1983). Detection of rice viruses by latex flocculation test. *Ann. Phytopath. Soc. Japan* 49: 441-442.
39. Omura, T., Minobe, Y., Kimura, I., Hibino, H., Tsuchizaki, T. and Saito, Y. (1983). Number of genome segments of rice ragged stunt virus. *Ann. Phytopath. Soc. Japan* 50: 87.
40. Omura, T., Minobe, Y., Kimura, I., Hibino, H., Tsuchizaki, T. and Saito, Y. (1983). Improved purification procedure and RNA segments of rice ragged stunt virus. *Ann. Phytopath. Soc. Japan* 49: 670-675.
41. Omura, T., Saito, Y., Usugi, T. and Hibino, H. (1983). Purification and serology of rice tungro spherical virus and rice tungro bacilliform virus. *Ann. Phytopath. Soc. Japan* 49: 73-76.
42. Omura, T., Hibino, H., Usugi, T., Inoue, H., Morinaka, T., Tsurumachi, S., Ong, C. A., Putta, M., Tsuchizaki, T. and Saito, Y. (1984). Detection of rice viruses in plants and individual insect vectors by latex flocculation test. *Plant Disease* 68: 374-379.
43. Ong, C. A. and Omura, T. (1982). Rice gall dwarf virus occurrence in Peninsular Malaysia. *International Rice Research Newsletter* 7(2): 7.
44. Ong, C. A., Chang, P. M., Ho, N. K., Omura, T., Usugi, T., Saito, Y. and Kobayashi, A. (1983). Morphology and serological relationship of penyakit merah virus in Malaysia and rice tungro virus in the Philippines. *International Rice Research Newsletter* 8(6): 10.
45. Putta, M., Chettanachit, D., Morinaka, T., Parejarearn, A. and Disthaporn, S. (1980). Rice ragged stunt virus disease in Thailand. *The Second Southeast Asian Symposium on Plant Diseases in the Tropics, October 20-26, 1980, Bangkok*, p.33.
46. Putta, M., Chettanachit, D., Morinaka, T., Parejarearn, A. and Disthaporn, S. (1980). Gall dwarf—a new virus disease in Thailand. *International Rice Research Newsletter* 5(3): 10.
47. Putta, M., Chettanachit, D., Omura, T., Inoue, H., Morinaka, T., Honda, Y., Saito, Y. and Disthaporn, S. (1982). Host range of rice gall dwarf virus. *International Rice Research Newsletter* 7(6): 13.
48. Saito, Y., Inoue, H., Omura, T., Morinaka, T., Satomi, H., Putta, M., Chettanachit, D., Parejarearn, A. and Disthaporn, S. (1980). Occurrence of rice transitory yellowing virus in Japan and Thailand. *2nd Southeast Asian Symposium on Plant Diseases in the Tropics, October 20~26, 1980, Bangkok, Thailand*, p.34.
49. Saito, Y. (1981). Rice virus diseases in Japan and the other Asian countries. *Japan Pesticide Information* 37: 8-11.

50. Saito, Y., H. Hibino, T., Omura and T. Usugi (1981). Transmission of rice tungro bacilliform virus and rice tungro spherical virus by leafhopper vectors. 5th International Congress of Virology, Strasburg, France.
51. Saito, Y. (1982). Interrelationship between rice virus diseases in Japan and those in South East Asian countries. *Virus*. 32: 51-56.

## Reports on legume viruses

1. Fukumoto, F., and Iwaki, M. (1983). Comparison among peanut mottle virus (PnMV) isolated from groundnut in Thailand and other related viruses. *Ann. Phytopath. Soc. Japan* 49 (3): 437. (Abstr. in Japanese).
2. Fukumoto, F., Thongmeearkom, P., Iwaki M., Choopanya, D., and Deema, N. (1983). Peanut mottle virus and tomato spotted wilt virus occurring on groundnut in Thailand. *Ann. Phytopath. Soc. Japan* 49 (1): 81. (Abstr. in Japanese).
3. Ghanekar, A. M., Reddy D. V. R., Iizuka N., Amin, P. W., and Gibbons, R. W. (1979). Bud necrosis of groundnut (*Arachis hypogaea*) in India caused by tomato spotted wilt virus. *Ann. appl. Biol.* 93: 173-179.
4. Honda, Y., Iwaki, M., Hanada, K., Saito, Y., Kiratiya-angul, K., and Srithongchai, W. (1983). Whitefly-borne viruses occurring on solanaceous plants in Thailand. *Ann. Phytopath. Soc. Japan* 49 (3): 437. (Abstr. in Japanese).
5. Honda, Y., Iwaki, M. Saito, Y., and Thongmeearkom, P. (1981). Some properties of mungbean yellow mosaic virus. *Ann. Phytopath. Soc. Japan* 47 (3): 415. (Abstr. in Japanese).
6. Honda, Y., Iwaki, M., Saito, Y., Thongmeearkom, P., Kiratiya-angul, K., and Deema, N. (1983). Mechanical transmission, purification, and some properties of whitefly-borne mungbean yellow mosaic virus in Thailand. *Plant Disease* 67: 801-804.
7. Honda, Y., Iwaki, M., Saito, Y., Thongmeearkom, P., Srithongchai, W., and Deema, N. (1982). Some properties of blackgram mottle virus isolated from mungbean and soybean in Thailand. *Ann. Phytopath. Soc. Japan* 48 (3): 391. (Abstr. in Japanese).
8. Honda, Y., Iwaki, M., Thongmeearkom, P., Deema, N., and Srithongchai, W. (1982). Blackgram mottle virus occurring on mungbean and soybean in Thailand. *JARQ* 16: 72-77.
9. Honda, Y., Thongmeearkom, P., Iwaki, M., Hibi, T., Sarindu, N., Deema, N., and Saito, Y. (1980). Occurrence of mungbean yellow mosaic virus in Thailand. *Ann. Phytopath. Soc. Japan* 46 (3): 415. (Abstr. in Japanese).
10. Iizuka, N., Rajeshwari, R., Reddy, D.V.R., Goto, T., Muniyappa, V., Bharathan, N. and Ghanekar, A.M. (1984). Natural occurrence of a strain of cowpea mild mottle virus on groundnut (*Arachis hypogaea*) in India. *Phytopath. Z.* 109: 245-253.
11. Iizuka, N., Reddy, D. V. R., and Ghanekar, A. M. (1979). Identification of some viral diseases of groundnut in India. *Proceedings of Symposium on Legumes in the Tropics*. Nov. 1979. Univ. Agric. Malaysia, Malaysia. p. 241-250.

12. Iizuka, N., Sreenivasulu, P., and Reddy, D. V. R. (1980). Two potyviruses isolated from groundnut in India. *Ann. Phytopath. Soc. Japan* 46 (3): 414-415. (Abstr. in Japanese).
13. Iwaki, M., Ong, C. A., Fukumoto, F., and Honda, Y. (1984). Peanut mottle virus isolated from groundnut and cowpea mild mottle virus isolated from soybean in Malaysia. *Ann. Phytopath. Soc. Japan* 50 (3): 441. (Abstr. in Japanese).
14. Iwaki, M., Thongmeearkom, P., Honda, Y., and Deema, N. (1983). Soybean crinkle leaf : a new whitefly-borne disease of soybean. *Plant Disease* 67: 546-548.
15. Iwaki, M., Thongmeearkom, P., Honda, Y., and Deema, N. (1984). Indonesian soybean dwarf virus and peanut mottle virus occurring on soybean in Thailand. *Ann. Phytopath. Soc. Japan* 50 (1): 86-87. (Abstr. in Japanese).
16. Iwaki, M., Thongmeearkom, P., Honda, Y., Prommin, M., and Deema, N. (1982). Soybean crinkle leaf disease occurring on soybean in Thailand. *Ann. Phytopath. Soc. Japan* 48 (1): 130. (Abstr. in Japanese).
17. Iwaki, M., Thongmeearkom, P., Honda, Y., Prommin, M., and Hibi, T. (1981). Three whitefly-borne virus diseases of legumes in Thailand. *International Meeting on Plant Virus Disease Epidemiology*. July 27-31, 1981. Oxford. p.60.
18. Iwaki, M., Thongmeearkom, P., Prommin, M., Honda, Y., and Hibi, T. (1981). Whitefly-borne cowpea mild mottle virus occurring on soybean in Thailand. *Ann. Phytopath. Soc. Japan* 47 (3): 409. (Abstr. in Japanese).
19. Iwaki, M., Thongmeearkom, P., Prommin, M., Honda, Y., and Hibi, T. (1982). Whitefly transmission and some properties of cowpea mild mottle virus on soybean in Thailand. *Plant Disease* 66: 365-368.
20. Iwaki, M., Thongmeearkom, P., Tsuchizaki, T., Honda, Y., Sarindu, N., Vonghiranpinyo, L., Tochiyara, H., and Deema, N. (1980). Virus diseases of soybean in Thailand. *The Second Southeast Asian Symposium on Plant Diseases in the Tropics*. Oct. 20-26, 1980. Bangkok.
21. Rajeshwari, R., Iizuka, N., Nolt, B. L., and Reddy, D. V. R. (1983). Purification, serology and physico-chemical properties of a peanut mottle virus isolate from India. *Plant Pathology* 32: 197-205.
22. Rajeshwari, R., Reddy, D. V. R., and Iizuka, N. (1981). Improvements in the passive haemagglutination techniques for serological detection of plant viruses. *Phytopathology* 71: 306-308.
23. Reddy, D. V. R., Iizuka, N., Ghanekar, A. M., Murthy, V. K., Kuhn, C. W., Gibbons, R. W., and Chohan, J. S. (1978). The occurrence of peanut mottle virus in India. *Plant Dis. Repr.* 62: 978-982.
24. Reddy, D. V. R., Iizuka, N., Subrahmanyam, P., Rajeshwari, R., and McDonald, D. (1979). A soil-borne disease of peanut in India. *Proceedings of American Peanut Research and Education Society* 11: 49.
25. Reddy, D. V. R., Rajeshwari, R., Iizuka, N., Lesemann, D. E., Nolt, B. L., and Goto, T. (1983). The occurrence of Indian peanut clump, a soil-borne virus disease of groundnut (*Arachis hypogaea*) in India. *Ann. appl. Biol.* 102: 305-310.
26. Saleh, N., Iwaki, M., Honda, Y., and Tantera, D. M. (1983). Blackgram mottle virus occurring on mungbean in Indonesia and detection of the virus from mungbean seeds. *Ann. Phytopath. Soc. Japan* 49 (3): 437-438. (Abstr. in Japanese).
27. Sreenivasulu, P., Iizuka, N., Rajeshwari, R., Reddy, D. V. R., and Nayudu, M. V. (1981). Peanut green mosaic virus - a member of the potato virus Y group infecting groundnut (*Arachis hypogaea*) in India. *Ann. appl. Biol.* 98: 255-260.

28. Thongmeearkom, P., Honda, Y., Iwaki, M., and Deema, N. (1984). Ultrastructure of soybean leaf cells infected with cowpea mild mottle virus. *Phytopath. Z.* 109: 74-79.
29. Thongmeearkom, P., Honda, Y., Saito, Y., and Syamananda, R. (1981). Nuclear ultrastructural changes and aggregates of viruslike particles in mungbean cells affected by mungbean yellow mosaic disease. *Phytopathology* 71: 41-44.
30. Thongmeearkom, P., Iwaki, M., Prommin, M., Honda, Y., Hibi, T., and Deema, N. (1980). A whitefly-transmitted, rod-shaped virus isolated from soybean in Thailand. The Second Southeast Asian Symposium on Plant Diseases in the Tropics. Oct. 20-26, 1980. Bangkok.
31. Tsuchizaki, T., Iwaki, M., Pholauporn, S., and Deema, N. (1983). Cucumber mosaic virus isolated from winged bean in Thailand. *Ann. Phytopath. Soc. Japan* 49 (3): 437. (Abstr. in Japanese).
32. Tsuchizaki, T., Iwaki, M., Thongmeearkom, P., Sarindu, N., and Deema, N. (1981). Occurrence of soybean mosaic virus in Thailand. *Ann. Phytopath. Soc. Japan* 47 (3): 408-409. (Abstr. in Japanese).
33. Tsuchizaki, T., Iwaki, M., Thongmeearkom, P., Sarindu, N., and Deema, N. (1982). Bean common mosaic virus isolated from mungbean in Thailand. *Ann. Phytopath. Soc. Japan* 48 (1): 130. (Abstr. in Japanese).
34. Tsuchizaki, T., Senboku, T., Iwaki, M., Pholauporn, S., Srithongchai, W., Deema, N., and Ong, C. A. (1984). Relationships among bean common mosaic virus, azuki bean mosaic virus and blackeye cowpea mosaic virus isolated from asparagus bean in Japan, Thailand and Malaysia. *Ann. Phytopath. Soc. Japan* 50 (3): 442 (Abstr. in Japanese).
35. Tsuchizaki, T., Senboku, T., Iwaki, M., Pholauporn, S., Srithongchai, W., Deema, N. and Ong, C. A. (1984). Blackeye cowpea mosaic virus from asparagus bean (*Vigna sesquipedalis*) in Thailand and Malaysia, and their relationships to a Japanese isolate. *Ann. Phytopath. Soc. Japan* 50 (4): 461-468.
36. Tsuchizaki, T., Senboku, T., Pholauporn, S., Srithongchai, W., and Deema, N. (1983). Cowpea aphid-borne mosaic virus isolated from asparagus bean in Thailand. *Ann. Phytopath. Soc. Japan* 49 (1): 131. (Abstr. in Japanese).
37. Tsuchizaki, T., Thongmeearkom, P., and Iwaki, M. (1982). Soybean mosaic virus isolated from soybean in Thailand. *JARQ* 15: 279-285.