

O-10. Analysis of Polyclonal Antibodies Raised Against *Streptomyces* Species Causing Potato Scab.

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Three representative potato scab pathogens which were *Streptomyces scabies*, *S. turgidiscabies* and *S. acidiscabies* were independently prepared as immunogens. Pathogens were injected subcutaneously into white rabbits, and three kinds of polyclonal antibodies were produced. Antibodies were tested to determine the presence of cross-reactions to various bacterial strains by Ouchterlony double diffusion test and western blot analysis. Also, titers of the antibodies were measured by drop agglutination method.

O-11. Two Pathogenic Bacteria, *Erwinia chrysanthemi* and *Pseudomonas viridiflava* Causing Soft Rot of *Ficus* sp.

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In spring 1998, a new bacterial disease of *Ficus* sp. was found in Suwon. The symptoms appears on the root as dark-brown lesions. These lesions rapidly developed into rot under high temperature and moist conditions. Seven bacterial isolates obtained from infected plants were divided into a genera from their diagnostic characters. Four isolates of them were identified as *E. chrysanthemi* on the basis of their bacteriological properties. On the other hand, 3 isolates were also determined as *P. viridiflava*. These are the first description of bacteria which cause the diseases on *Ficus* sp. plants. These isolates possessed an ability to affect *Ficus* sp. tissues by needle-prick. The symptoms caused by *E. chrysanthemi* were hardly distinguished from those of *P. viridiflava*. In addition, it was observed that most of naturally infected plants were attacked by the 2 pathogenic bacteria at same time. From the reason mentioned above, we proposed to use a single common name "soft rot of *Ficus* sp." for the both bacterial diseases, hereafter.

O-12. A Selective Medium for the Isolation of *Acidovorax avenae* subsp. *avenae* from Rice Seed.

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A Selective agar medium (YTA) was developed for isolating *Acidovorax avena* subsp. *avenae* Willems *et al.*, the causal agent of bacterial stripe from rice seeds. The new medium YTA contained Yeast extract 9.0 g, Tween #80 10ml, 1N NaOH 9ml, 10% CaCl₂ · H₂O. 6ml, FeSO₄ 100 mg, Victoria Blue 40 mg, Agar 15 g and 5-Fluorouracil 62.5 mg per liter. Colonies of *A. avenae* subsp. *avenae* were 2 - 2.5 mm in diameter, smooth, round, convex and blue(darker center) after 5days after incubation at 28°C. *A. avenae* subsp. *avenae* strains formed blue colonies with lipase lysis zone on YTA media containing tween #80 and victoria blue. The blue color with lipase lysis zone was characteristic for the bacterial stripe pathogen including strains from corn and was used to identify colonies of *A. avenae* subsp. *avenae*. Addition of FeSO₄ and 5-Fluorouracil to YTA reduced the Xanthomonas-like and other saprophytes. The recovery of 6 isolates of *A. avenae* subsp. *avenae* on the YTA medium ranged from 80.6 % to 120 % (mean 93.6 %) in comparison to YDC medium. The saprophytic bacteria from rice seed lots on YTA medium was reduced to 70.8 % of that on YDC medium.