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RUST, TRANZSCHELIA DISCOLOR (FCKL.) TRANZ. & LITV., ON PEACH, PRUNUS PERSICA (L.) BATSCH

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The rust fungus, Tranzschelia discolor (Fckl.) Tranz. & Litv., is found throughout the world wherever peaches are grown but is most commonly found in the warmer sections of the peach-growing areas. It was reported in the United States between 1880 and 1890 as commonly attacking peaches, and was probably introduced into this country from Europe. In addition to peaches, this fungus also attacks apricot, plum, prune, almond and cherry. An alternate host is Anemone coronaria L. Since this plant is not very common in Florida, it is possible that some other plant in the family Ranunculaceae serves as the alternate host in Florida. However, in warm areas of the world, such as Florida, the presence of an alternate host is not necessary to perpetuate the disease.

Although this disease is found in all peach-growing areas of the world, it is usually of little economic importance. This is because heavy infection usually occurs in late summer or fall after the crop has been harvested. However, because of Florida's warm temperatures, the rust may attack in early spring resulting in premature leaf fall, thereby weakening the tree.



Lower Surface

Fig. 1. Rust, Tranzschelia discolor (Fckl.) Tranz. & Litv., on leaves of peach, Prunus persica (L.) Batsch.

SYMPTOMS. Symptom expression varies according to the host variety, time of infection and the severity. The disease on the leaf is first noted as pale yellowish spots on both leaf surfaces. Later these spots become bright yellow. Eventually the spots on the underside of the leaf develop into cinnamon brown, dusty pustules of the rust fungus (Fig. 1).

Defoliation usually occurs only when the leaves are severely infected. However, some varieties in Florida will defoliate more severely than others with approximately the same amount of infection. There has been no report of fruit, twig or bark infection in Florida as has been reported from California, Australia and New Zealand.

CONTROL. Control measures have not been necessary in Florida because the rust usually attacks late in the season. However, as the peach acreage increases, in Central Florida, rust may prove to be one of the more serious diseases of peach. Sprays of zinc sulphate-lime (4-4-100) help to control rust as well as correct any problem of zinc deficiency.

References

- 1. Anderson, H. W. 1956. Diseases of fruit crops. McGraw-Hill Book Co., Inc., New York. 501 p.
- Arthur, J. C. 1934. Manual of the rusts in the United States and Canada. Purdue Research Foundation, Lafayette, Indiana. 438 p.
- 3. Butler, E. J. and S. G. Jones. 1961. Plant pathology. MacMillan & Co. Ltd., London. 979 p.
- 4. Sharpe, R. H. 1966. Peaches and nectarines in Florida. Univ. of Florida Agr. Exp. Sta. Circ. 299. 20 p.