



The arrow points to a cabbage plant that was infected by the "yellows" fungus. Notice that it is light-colored and stunted.



RESISTANT DETROIT



RESISTANT GOLDEN ACRE

Two yellows-resistant cabbage varieties, Resistant Golden Acre and Resistant Detroit, yield well and are high quality crops for our desert areas. These two cabbages were grown on same yellows-infested field as was the stunted non-resistant one shown above.

Good cabbage crop possible in spite of

# Cabbage Yellows

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A cabbage disease was found in the Glendale area in the fall of 1952 which caused a loss of about 20 percent of the crop in a severely diseased field. Since that time the disease has been found in additional fields in the Salt River Valley and has been identified as "yellows."

## The Cause

Cabbage yellows is a disease caused by a fungus that lives in the soil. It is frequently found in fields in which cabbage has been planted for several seasons. Once our soils become infested with the fungus, no way is known to rid the soil of the fungus.

Yellows is a hot-weather disease; only the early fall plantings have been damaged severely. If cabbage is planted after the latter part of September, the soil is usually too cold for the fungus to grow rapidly and the farmer will not have to worry about yellows attacking his crop.

## Symptoms

A young plant that is infected by the fungus becomes yellowish-green and is stunted. As the disease becomes worse, the lower leaves die and eventually the entire plant may be killed. Not all infected plants die; some may survive but will never head properly and the dying lower leaves become brown or almost black. The remaining yellowish-green leaves may roll inward slightly at their margins and sometimes only half of a leaf may be affected.

We can easily identify the disease by splitting the tap root lengthwise. Brown or black streaks will be seen along the

inside of the root which may even extend up the stem if the plant is severely affected.

## Control

The only control of this disease is provided by growing yellows-resistant varieties. Some of these resistant types will grow well under our desert conditions and others are not adapted. During 1953 and 1954 six early resistant cabbage varieties were grown in a field in which yellows had been severe and were compared to the commonly grown Golden Acre variety which is very susceptible to the disease.

In order to be acceptable to cabbage growers, a fall variety must have more than disease resistance: It must give a heavy yield of solid heads of about 5½ to 6 inches in diameter; the cabbage should be early and the top of the head should not become badly damaged by sunburn or frost.

All of these qualities were considered when the varieties were compared and only two of them qualified as high quality, yellows-resistant types: The Resistant Golden Acre and Resistant Detroit proved to be far superior to Golden Acre in several respects in addition to being resistant to the yellows disease. Red Hollander, a red variety, was found to be very resistant to the yellows.

Even if a field has not become infested with the yellows disease it would be advisable for a grower to try the Resistant Golden Acre or Resistant Detroit varieties because of their superiority in such characteristics as yield, earliness, and resistance to sunburn or frost damage to the cap leaf.

## FIRST MELON SEED CERTIFICATION IN ARIZONA

The first melon to be certified according to the rules and regulations of the Arizona Crop Improvement Association, is the new "Arizona Sunrise" cantaloup.

Arizona Sunrise was developed by Dr. R. E. Foster of the Agricultural Experiment Station of the University of Arizona, in cooperation with commercial growers.

(See Progressive Agriculture in Arizona, January 1955 issue.)

The new regulations for certification of musk melons (including cantaloups, honeydew, casaba, Persian melons and Cranshaws) are aimed at the production of good seed of the same genetic makeup as the originally developed strain.