NEW YELLOWS RESISTANT VARIETIES OF CABBAGE IN INDIANA.

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The yellows resistant varieties of cabbage have proven to be a decided success in Indiana. In no case has the resistant quality broken down under our conditions. The chief difficulty has been, however, that nothing but mid-season to late varieties have been available. This year three early varieties, Marion Market, Allhead Select and Iacope, were tried. They proved to be quite successful both as to their resistance to yellows and to their market value.

The Marion Market is a selection made at Wisconsin from Copenhagen Market. The Allhead Select is another Wisconsin selection from the Allhead Early variety. Iacope was developed in Iowa from Copenhagen Market.

At Indianapolis these varieties were planted on yellows infested soil beside the variety Golden Acre. On August 8, these plots were visited. At that time what remained of the Golden Acre was being harvested and the Marion Market was just ready to be cut. About 50 per cent of the Golden Acre plants had been destroyed by the yellows. The Marion Market was 95 per cent resistant, but was about a week later in maturing. The Iacope was 90 per cent resistant and matured at about the same time as the Allhead Select.

At Evansville the reports were even more favorable. Marion Market was 98 per cent resistant, was first to mature the heads, of which 96 per cent were marketable. All Seasons, another resistant variety, was second in maturity. It was also 98 per cent resistant and produced 94 per cent of marketable heads. Allhead Select was third in maturing, was equally resistant and produced 94 per cent marketable cabbage. Iacope was fourth to head. It was a little less resistant, 95 per cent, but only 75 per cent of the heads were marketable.

In Lake County at Hammond, the Marion Market was 90 per cent resistant and in the Allhead Select 95 per cent of the plants were free from the disease. Under these conditions the Marion Market matured earlier than the Allhead Select but the grower reports that it was not as early at the common Copenhagen Market nor are the heads as solid and heavy. The Allhead Select pleased this gardener more since the heads were solid and large.

At Logansport the Marion Market was considered to be the best variety. It was 95 per cent resistant and produced a solid, medium-sized, round head. On the other hand, the Allhead Select, though just as resistant, produced large, flat heads that did not get solid. Both of these varieties head at the same time as the Glory of Enkhuisen or

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what the gardeners term second early. All this cabbage was planted in disease-infested soil, as is proven by the fact that 40 per cent of the Glory of Enkhuisen was destroyed by the yellows.

It would appear from these reports that the Marion Market is most suitable for markets demanding a small, solid head of cabbage. For kraut purposes, the Allhead Select may be more suitable, since it is larger and looser. The Iacope variety, while it is sufficiently resistant, does not seem to have the quality demanded by the gardeners. It tends to large, flat heads and looseness of texture that is often undesirable in market varieties. It is apparent, too, that resistance seems to be linked with lateness, at least none of these varieties are as early as the parent type. However, this fact is not sufficient to condemn the varieties, since they do possess a remarkable resistance to the yellows and will produce large crops on badly infested soil.

For the late varieties, the Wisconsin All-Seasons, Wisconsin Succession, Wisconsin Hollander and the Indiana still retain their place in the lead. The Bugner variety developed at Chicago has not proven acceptable. Where it has been grown the plants are large, the leaves are coarse and too often it fails to produce a head, but still it is resistant.

CONTROLLING TOMATO LEAF MOLD IN GREENHOUSES IN INDIANA.

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One of the most serious diseases of tomatoes in greenhouses in Indiana is the tomato leaf mold (fig. 1). It is not universally present but where it does occur it usually kills all the leaves and the plants appear as if swept by fire (fig. 2). Commonly the disease does not become serious until after the second or third clusters have been harvested. At this time every leaf except a few at the top of the plant

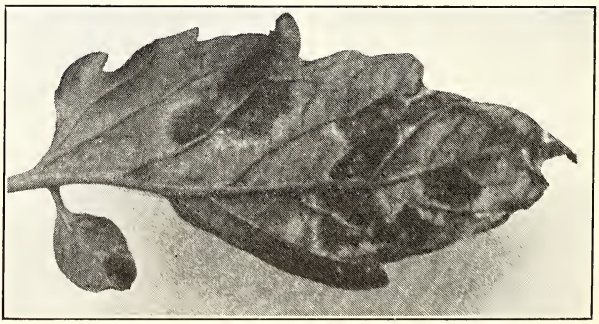

Fig. 1—Tomato leaf mold symptoms.