

Two Problems With Stored Head Lettuce

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An abnormality occasionally found in fields of Arizona's early spring lettuce crop is pink rib. In such cases the main ribs—which are the veins—at the base of the leaves on mature heads get a faint pink color. This color may become more intense as time goes on.

The color is diffuse and is more evident on the under sides of the ribs. In the field the color usually extends only from the base of the rib to that area where the main rib branches into several veins. In severe cases, after the lettuce has been stored, the veins that extend to the leaf margin also may be affected. The disease is found on lettuce which appears to be normal in all other respects. No one knows the cause of this malady.

Experiments were conducted during the past three years to find out if pink rib would appear during storage of lettuce that had shown no signs of the disease when it was cut. We also wanted to know if lettuce with pink rib was especially subject to decay.

During the course of a storage experiment, an entire lot of 80 apparently normal, trimmed lettuce heads gradually developed symptoms of pink rib. Much of the pink color appeared in the lettuce during the first six days in storage.

Refrigeration Helps

Half of the heads were kept at 37° and the rest at 47° F. Some heads were severely affected with pink rib, others very little. After 25 days in storage there was no more decay in the lettuce with severe pink rib than in slightly affected heads.

During the sixth day of storage, all heads were rated and we found that pink rib symptoms were significantly more severe in lettuce stored at 47° than that held at 37° F. We may conclude that adequate refrigeration during shipment

of Arizona lettuce will probably decrease the amount of pink rib found on its arrival.

Rib Discoloration

Another problem which affects Arizona lettuce, but which seems to have no relationship to pink rib, is rib discoloration. This disease is sometimes called rib blight and is especially common in our spring lettuce.

Yellowish-tan or brown, oblong spots appear in the leaf ribs of nearly mature heads. These may eventually become black with age. Most of the discolored areas are found in that part of the leaf where the main rib branches into several veins. The three or four outer, larger leaves of a head are most severely affected. Only in extremely severe cases will the outer 10 or 12 leaves all be discolored. The loose frame leaves of a lettuce plant seldom show rib discoloration. Heads that are affected by the malady may be normal in all other respects.

Increases Rapidly

The disease first appears two to three weeks before harvest and may ruin an entire field of lettuce as it becomes more severe. Rib discoloration usually does not begin on one side of a field nor in localized areas but seems to be fairly evenly distributed.

Even though the cause of rib discoloration has not yet been found, we have been able to learn something about its effect upon stored lettuce. Healthy heads and heads with rib discoloration were harvested from the same field. The lettuce was then stored in refrigerated rooms at 37° and 47° F. Observations were made at intervals.

Three Bad Effects

The discolored spots in the lettuce ribs did not increase substantially in number nor in size. However, the quality of affected lettuce became progressively poorer due to three other factors. 1. The color of the discolored areas became darker, which made the produce more unsightly. 2. Lettuce with rib discoloration was more susceptible to decay than healthy lettuce. 3. Pink rib was more severe after storage of the rib discolored heads.

Refrigeration is the only known method for controlling decay of lettuce. Since rib discolored lettuce is especially susceptible to decay, it is extremely important that we provide adequate refrigeration to shipments which have even a slight amount of the disease.

iences as county agents have adequately trained them for these important foreign assignments. And the aid America has thus given to these foreign countries is probably the best and most lasting type of assistance.

What are the requirements for positions in the Agricultural Extension Service? The first requirement is a degree in agriculture from a recognized college of agriculture.

While it has not been a requirement, there are certain advantages in having been farm or ranch raised. This gives a better understanding of basic farm problems as well as a greater knowledge of rural thinking. Experience in related fields after graduation is of definite value, but is not a necessity.

Leadership Essential

Finally, the individual should have certain personal qualities and attributes.

He must have leadership ability and be able to work with people. He should have had training in educational methods, because his is the role of a teacher. He will find that the ability to analyze a problem and work out a well planned solution is indispensable to success in county agent work. He must love working with people and working in agriculture.

The Agricultural Extension Service offers many opportunities to the college graduate. Here are opportunities to live close to the soil and learn agriculture in all of its phases; to work with people, with boys and girls in their youth work, giving them guidance and helping in the many problems they meet each day.

The contribution to society in the field of extension is limited only by the ability and determination of the individual to meet the challenge of the day. Many individuals have spent a life-time in Extension work, enjoying every minute of it. The opportunity is yours, too! Will you meet it?