

SUMMARY AND ANALYSIS OF SHIPPING PROBLEMS  
OF WASHINGTON POTATOES

Don Bakes

Extension Horticulture Specialist

In order for Washington Potato Industry to stay competitive in the fresh potato market it is necessary not only to pack and ship a Quality product, but also to insure that these spuds arrive at the market place as a Quality product.

If a car lot of potatoes is shipped in grade, but when received is out of grade -- what has been gained? Wherein did we err? Was it the growers' fault? Was it the shippers' fault? Was it the markets' fault? Or all three?

Traditionally it has been the custom to look in the direction of the potato grower when problems arise. It goes without saying that when potatoes are handled mechanically there will be a certain amount of bruised and injured potatoes. Today, I would like to consider this problem from the standpoint of the shipper, although this may not be where the fault lies.

With the exception of Table 1, the data herein presented was collected from reinspection reports of 29 shippers and covered the shipping period of July, August, September, October and to November 19, 1965.

An examination of Table 1 and Table 2 shows the percentage of blackspot and soft rot in Washington potato shipments rejected at terminal markets in 1964 and 1965.

Notice that blackspot amounted to only 13 percent of total defects, while soft rot, slimy soft rot, and leak rot amounted to 84 percent in 1964.

Figure 1 indicates the number of shippers with rejected cars as of approximately November 19, 1965. These results were calculated as a percent of total cars shipped.

See Figure 1

Figure 2 shows the number of shippers with blackspot in rejection reports (calculated as percentage of total defects reported).

See Figure 2.

This table shows that some shippers had more blackspot than others. Why? Are they in an area where the potatoes were more susceptible? This could be true. In some areas of the Basin the soils do not allow

water from a rill to penetrate the hill readily. Or was it the result of rough handling?

Figure 3 shows the number of shippers with soft rot and slimy soft rot appearing in rejection reports.

See Figure 3.

This table shows that some shippers had much more soft rot on reinspection reports than others. Why? Was this caused by the potato grower who over-irrigated to prevent blackspot? Was it caused by the shipper who loaded wet, injured potatoes into warm railroad cars? Was it the result of poor environment during transit?

### Conclusion

The following conclusions are based on an analysis of the reinspection reports for Washington potato shipments rejected at terminal markets for 1964 and 1965.

(1) Examination of records for two years indicated that soft rot and blackspot were the principle reasons for cars arriving out of grade at terminal markets.

(2) In 1964 soft rot, slimy soft and leak rots constituted 84% of all observed defects. Blackspot occurred as a defect on 13 percent of all reinspection reports. In 1965, blackspot occurred as a defect on 49 percent of all reinspection reports while soft rot, slimy soft rot and leak rot occurred on 50 percent of all reinspection reports.

(3) In 1965, an average of 5.3 percent of all cars shipped by 29 shippers during the period July to November 19 were rejected.

(4) A majority of the shippers had less than 1 to 9 percent of their total shipments rejected in 1965. Several shippers had 11 up to 30 percent of their shipments rejected.

Table 1. Tuber defects reported in Washington potato shipments rejected at terminal markets in 1964.<sup>1/</sup> (Partial sampling)

AVERAGE PERCENT <sup>2/</sup>				
Soft rot and slimy soft rot	Leak rot	Black spot	Fusarium soft rot	Jelly end rot
57	27	13	2	2

Table 2. Tuber defects reported in Washington shipments rejected at terminal markets in 1965 as of about November 19, 1965.<sup>2/</sup>

AVERAGE PERCENT <sup>2/</sup>					
Average <sup>3/</sup> % cars rejected	Black spot	Soft rot and slimy soft rot	Leak rot	Fusarium rot	Jelly end rot
5.3	49	43	7.2	0.1	0.5

<sup>1/</sup> Based on records provided by Mr. W. J. Irely, Supervisor, Fresh Products Inspection, Federal-State Inspection Service, and Mr. Fred Ramsey, Washington State Potato Commission.

<sup>2/</sup> Based on number of times each type of tuber defect appeared in the reinspection reports.

<sup>3/</sup> Based on percent of total cars shipped from 29 shippers from Washington who had cars reinspected.

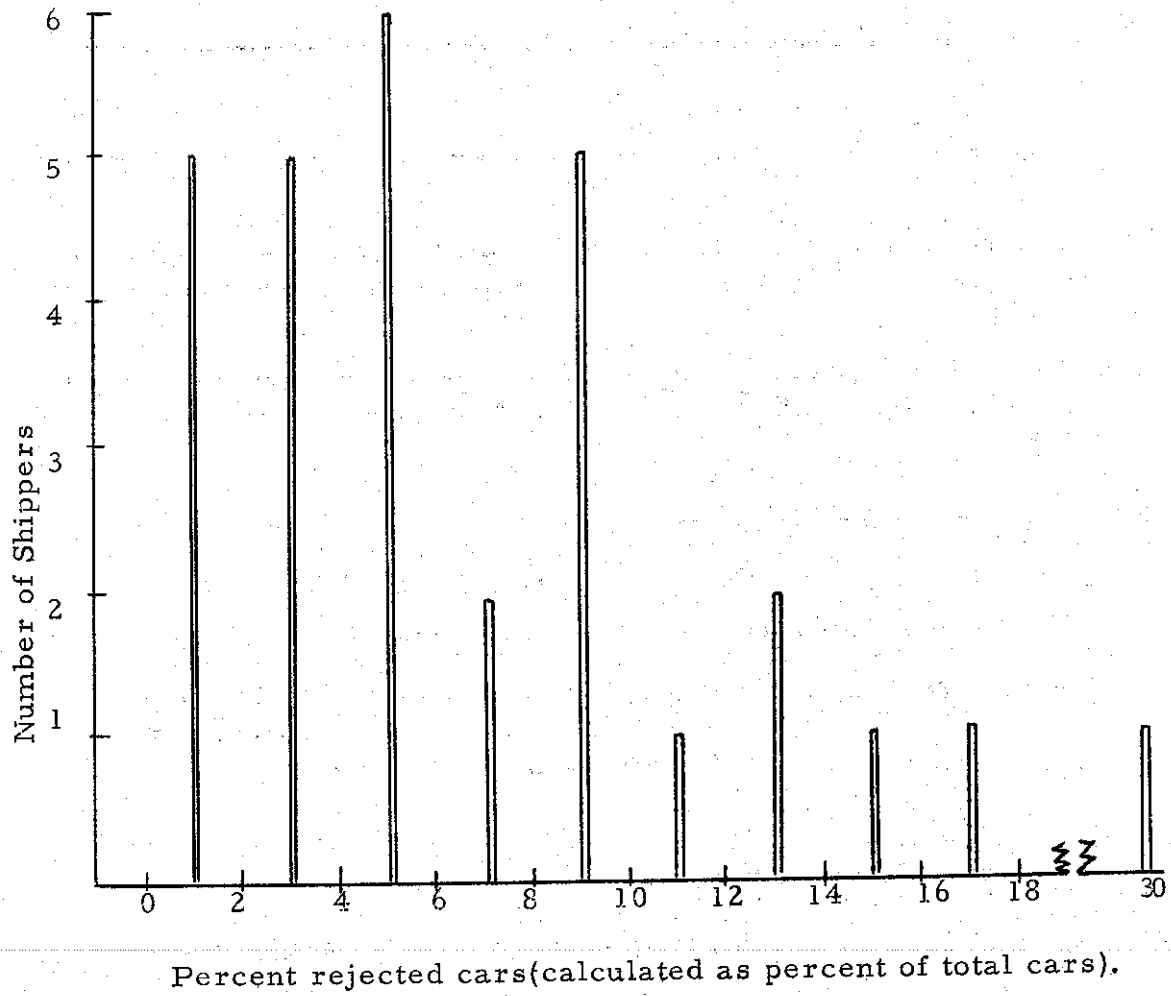
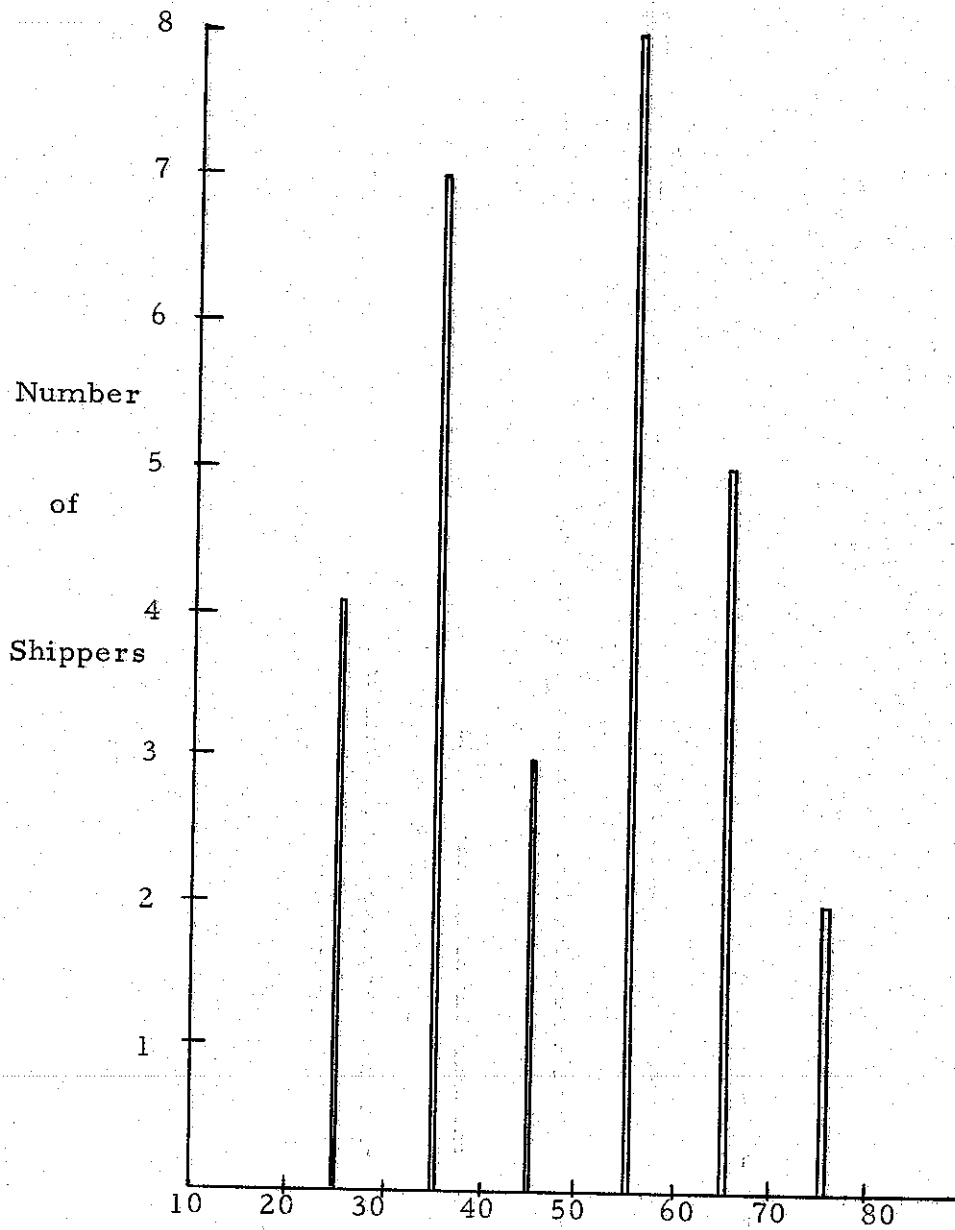
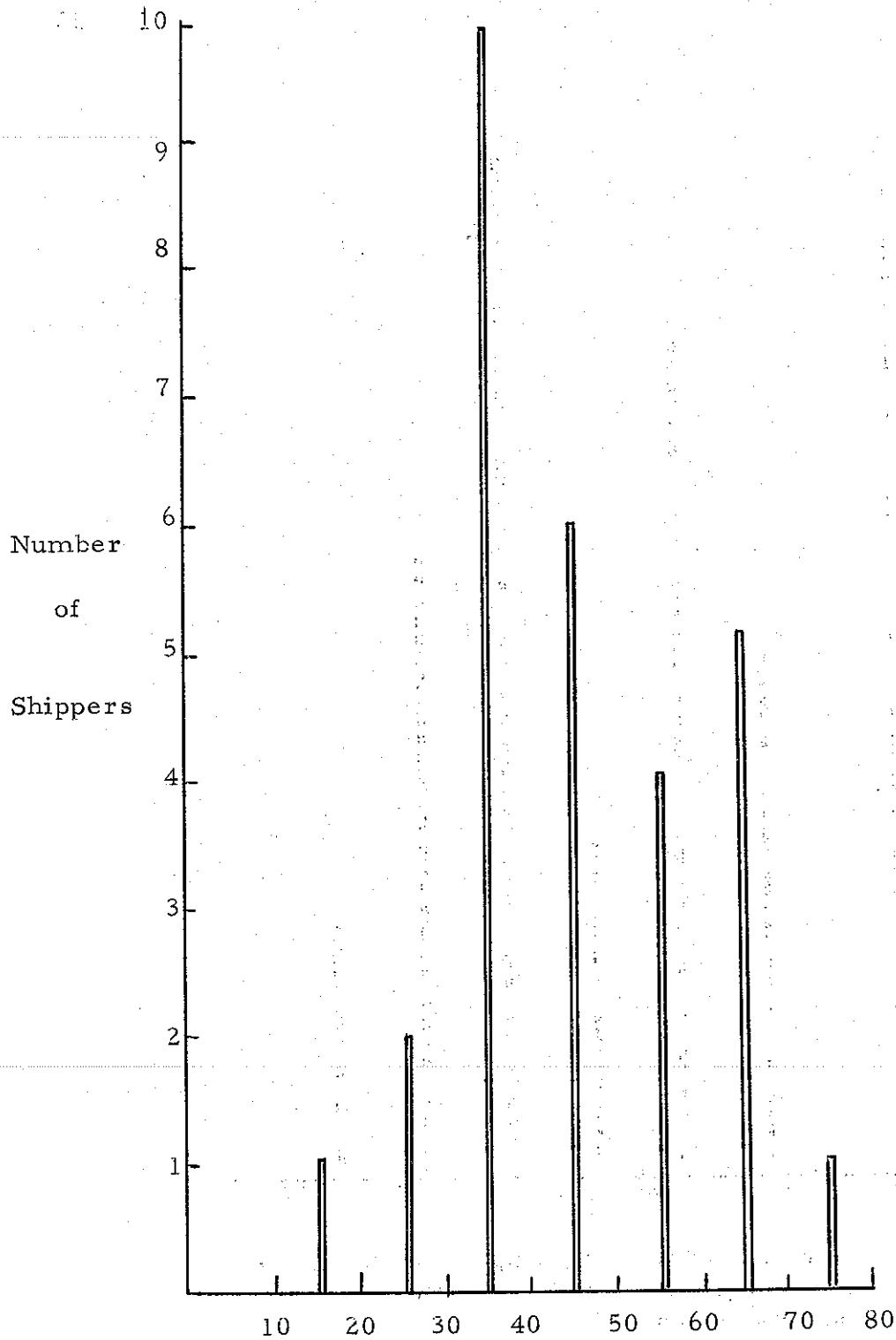


Figure 1. Number of shippers with rejected cars as of approximately November 19, 1965.



Percent of black spot appearing in rejection reports (calculated as percent of total defects reported).

Figure 2. Number of shippers showing black spot in rejection reports when reinspected.



Percent of soft rot and slimy soft rot appearing in rejection reports (calculated as percent of total defects reported).

Figure 3. Number of shippers showing soft rot and slimy soft rot in reinspection reports when reinspected.