of 138 should be included, as is shown in the following table for gas-stored fruit that has been held subsequently for fourteen days at 68° F. :—

Count.	Breakdown.	Fungus.	Pit.
	Per Cent.	Per Cent.	Per Cent.
125	37	12	11
138	11	10	13
150	4	7	1
180	4	8	4
198	5	12	0

Superficial Scald on Granny Smith

Delayed-storage Test.—This investigation is a continuation of work that has been proceeding since 1942. This year, fruit of two pickings stored in both plain and oiled wrappers was subjected to delayed storage at weekly intervals up to six weeks. Examinations were made on all the samples in November, irrespective of whether scald had appeared or not, since it was thought that the variety should normally store successfully until then. Other fruit from each sample was placed in a constant-temperature room for fourteen days at 68° F. and 90 per cent. humidity. It was then removed and examined to assess whether the fruit had a satisfactory post-storage life, and also to see whether the most beneficial period of delay was of the same duration as that for fruit examined immediately on removal from store. A further examination was made on each series when all the fruit was showing some scald, but in this case no fruit was placed in the constant-temperature room. The optimum delay, from the standpoint of scald development, is set out in the following table, with the 1943 results for comparison.

Picking.	Wrapper.	First Examination.		Second Examination.	1943 Data.
		On Removal.	After Fourteen Days at 68° F. and 90 Per Cent. R.H.		
First	Plain	4 weeks	4 weeks	4 and 6 weeks	5 weeks.
„	Oiled	No scald	4 and 6 weeks	3 weeks	6 weeks.
Second	Plain	5 weeks	6 weeks	2 and 6 weeks	3 weeks.
„	Oiled	No scald	3 and 6 weeks	6 weeks	5 and 6 weeks.

The results are not exactly similar to those of 1943, but the two have much more in common than either one has with those obtained in 1942, when scald was least on fruit either stored immediately or subjected to four weeks' delay.

For diseases other than scald the results were similar to those of 1943—viz., core-flush and the form of breakdown that arises from the extension of core-flush into the cortex were decreased by delayed storage, but fungus was increased, especially after periods of four weeks or more.

The limit to the delay allowable, however, is governed by the ground colour of the fruit, and numerical assessments of colour indicated that the maximum period was rather less than that needed for the best control of scald. A revised table showing the maximum period allowable from the standpoint of ground colour at date of removal from storage is as follows :—

Picking.	Wrapper.	First Examination.	Second Examination.
First	Plain	4 weeks	3 weeks.
„	Oiled	4 weeks	3 weeks.
Second	Plain	2 weeks	2 weeks.
„	Oiled	3 weeks	2 weeks.

It should be noted that in all three years oiled wraps prevented scald from appearing in both pickings during the whole of the normal storage life of the fruit. This season no scald appeared on either picking in oiled wraps until mid-January, irrespective of the periods of delay prior to cool storage.

A detailed report of this work is being prepared. A considerably modified experiment on similar lines is being conducted during 1945.

Wrapping Test.—In the last annual report it was indicated that fruit that spent most of its storage life in oiled wrappers but was left unwrapped for any three-week period during the first twenty-four weeks of storage remained free from scald until January or February, which is far beyond the normal storage period of the variety. This year an attempt was made to determine how long it was possible to leave the variety without oiled wraps, on either side of the period of maximum susceptibility, before scald appeared. This was done by keeping the fruit without oiled wraps for increasing periods of a week on either side of the ninth to the twelfth week of storage, which had been found to be the most scald-susceptible period. The greatest length of time that the fruit remained unwrapped was from the beginning of the seventh week to the end of the sixteenth week of storage. Two pickings were treated in this way, but no data could be obtained, since scald did not appear at all till February, by which time the fruit was suffering badly from core-flush and breakdown. Although scald could not be induced to appear on the variety during its normal period of storage, such as did appear later indicated that increased periods without protection of oiled wraps caused more and more scald to appear. Leaving the fruit unwrapped either before or after the most susceptible period did not influence the result, nor was there a sharp rise in the amount of scald at any point to indicate a definite period beyond which it would be unwise to leave fruit unwrapped without incurring heavy losses from scald. Since the investigation has not given any results of practical significance, no further work along these lines is envisaged in the immediate future.