

For the last eight years a creamery in Pennsylvania has stored 20,000 to 25,000 pounds of print butter annually in a commercial cold-storage warehouse in Washington, D. C. The butter was made from unripened, pasteurized sweet cream and was of very fine quality. It was printed at the creamery with a 1-pound hand printer, placed in dry parchment wrappers and paraffined cartons, and packed in wooden boxes of 50 pounds capacity. It was shipped by express to Washington and stored at a temperature of approximately 0° F. Some of it was held as long as seven months. Upon removal from storage it was sold to people who were accustomed to getting fresh butter from that creamery. A critical examination of the butter showed a slight surface taint but during the eight years that the storage butter has been used the quality has been satisfactory to the consumers. This indicates that the surface taint was so slight that it escaped the consumers' attention.

Prints Weighed Individually

In order to determine loss in weight during storage nine hundred and fifty 1-pound prints were weighed individually at the creamery and weighed again after six months' storage at 0° F. The butter for this investigation was taken from regular churnings at the creamery, and was printed and packed as described above. It was shipped to a cold-storage warehouse in Washington, D. C., where it was held at about 0° for six months. The loss in weight of individual prints varied from 0 to $\frac{1}{8}$ ounce. Some of the greater losses were probably due to the presence of unincorporated water, that is, water in large drops which escaped after the first weighing.

The loss in weight was affected but slightly by the position of the print in the case. The outside prints lost, on an average, $\frac{1}{60}$ ounce per print more than the inside prints.

The manufacturing data at the creamery showed that the butter from three churnings was firm while that from two was soft. The soft butter lost $\frac{1}{2}$ ounce per pound print more than the firm butter.

Among the nine hundred and fifty 1-pound prints only three lost as much as $\frac{1}{4}$ ounce. The soft butter lost an average of $\frac{1}{4}$ ounce and the firm butter $\frac{1}{8}$ ounce per pound. The average loss for all prints was a trifle less than $\frac{1}{8}$ ounce per 1-pound print. This is at the rate of nearly 8 ounces on 64 pounds, which is the amount usually allowed for shrinkage when packing 64-pound tubs.

These observations indicate that sweet-cream butter in 1-pound prints may be held in cold storage for at least seven months without material deterioration in flavor and that, when the moisture is well incorporated in the butter, the shrinkage should not exceed $\frac{1}{8}$ ounce per 1-pound print.

WILLIAM WHITE, *Bureau of Dairy Industry.*

CABBAGE Variety Jersey Queen Adds Early Strain Resistant to Yellows The yellows disease of cabbage is one of the most hazardous diseases of this crop except in those northern sections such as New York State and northern Wisconsin where the climate is too cool for its development. It is caused by a persistent fungus (*Fusarium conglomerans*), which, when once introduced, remains indefinitely in the soil. The only suc-



FIGURE 9.—The plot of severely infested soil where cabbage selections are tested for resistance to the yellows disease. The two rows at the right were planted with a susceptible variety of cabbage; nearly all plants succumbed to the disease. At the left are two pure lines of Jersey Queen which resisted the disease perfectly

Successful control of this disease is through the development of varieties of cabbage that resist the parasite. Since 1912 several resistant varieties have been introduced, among which are two late varieties, Wisconsin Hollander and Wisconsin All Seasons, and three midseason varieties, Marion Market, Globe, and All Head Select.



FIGURE 10.—A mature head of Jersey Queen cabbage. The shape of head is similar in every respect to that of the mother variety, Jersey Wakefield

Until recently a resistant strain of early-maturing type has not been available. However, there has now been perfected a resistant strain from the Early Jersey Wakefield variety, which is popular as an early-market and home-garden cabbage. To distinguish this new strain from the mother variety it has been named Jersey Queen.

Jersey Wakefield is very susceptible to yellows. In badly diseased soil 95 per cent of the plants commonly succumb. It was from the small percentage of survivors that the new variety, Jersey Queen, was developed. By selection from such survivors and reselection over a period of years were developed pure lines which completely withstood the disease on soil so

severely infested with the yellows parasite that most plants of a susceptible variety succumbed. (Fig. 9.) From these pure lines many plants were eliminated because of their failure to correspond closely to the Jersey Wakefield in earliness, type of head, and other characters. One of these pure lines was chosen after three years of close comparison with the mother variety. This line was made the basis for multiplication.

The new variety is very similar in type to the better strains of Jersey Wakefield, with which it has been compared. It matures just as early and as uniformly as the earliest strains of the mother variety. The average weight per head is equal to that of the early strains of Jersey Wakefield. The characteristic pointed head is maintained (fig. 10), and the core is inclined to be somewhat shorter.

Seed of this new variety is now being made available through the seed trade. Inquiries regarding sources of supply may be directed to the Department of Agriculture.

J. C. WALKER, *Bureau of Plant Industry.*

CAMPS in the National Forests Attract Farm Folk Seeking Recreation

Increasing use of the conveniently located national forests of Oregon and Washington is being made by people from the agricultural lands of the interior where summer temperatures make the lowlands uncomfortable. Summer sun on fallow and stubble, quivering heat on orchard and field, are more bearable when an ever-extending road system makes it possible to reach the forest-bordered streams or lakes of the national forests within a few hours.



FIGURE 11.—An attractive and inexpensive summer home in an Oregon national forest

The Forest Service has anticipated this recreational use and has carefully planned for it by setting aside tracts of land along streams, lakes, and highways for the use of the public. Each person can find somewhere within reach of his home a place in the national forests which will exactly meet his need as a refuge from summer heat. He