

Lamb Consumption

varies according to population group and to size of family annual income

Varden Fuller

The average American eats about 160 pounds—retail weight—of meat, poultry and fish each year.

The total of 160 pounds is comprised as follows: beef, 50 pounds; veal, nine pounds; lean pork, 45 pounds; lamb and mutton, 4½ pounds; the remainder, 51½ pounds, includes fat cuts of pork, game, and fish.

Beef is most uniformly consumed in all sections of the country and by all population groups. Whether the amount of beef consumed is small or large depends primarily on the income position of the family—the higher the income level, the more beef consumed per person in that family.

For pork, the consumption pattern is almost completely the reverse. Pork consumption varies geographically and also by population groups. But within groups—whether geographic or social—habituated to pork, the amount consumed is about the same, irrespective of income. Whereas beef consumption increases continuously from the lowest to the highest income levels, pork consumption remains about the same whether family annual income is \$2,000 or \$7,500. Beef consumption, therefore, is stable geographically but varies with income; pork consumption does not change much with income, but does vary with population group and geographic area.

Lamb consumption has neither of these uniformities. It varies both with population group and with income level. San Francisco, for example, uses eight times as much lamb per capita as does Minneapolis or St. Paul and twenty times as much as Birmingham. Some population groups use lamb very heavily; others reject it almost entirely. Lamb consumption in the United States is heavily concentrated in large cities and in high income groups. In 1942 urban consumers in the annual income category under \$500 were using three pounds of lamb per person per year; those with \$500 to \$2,500 were using five to seven pounds, and those with incomes of \$2,500 to \$5,000 were using 12 to 16 pounds.

Some of these characteristics of lamb consumption bear heavily on problems relating to production, marketing and prices of lambs. Two of these to be discussed here relate to lamb prices and to the marketing of heavy lambs.

The ratio of lamb and beef prices has recently been somewhat unusual. In 1941–1943 good grade steers and good and choice grade slaughter lambs sold on the Chicago market at almost identical annual average prices. In 1948, lamb prices dropped below steer prices by \$2 to \$9 per hundred pounds liveweight. Again, in the last quarter of 1949, lamb prices on the Chicago market averaged approximately \$6 per hundredweight below steer prices.

If, within this period, lamb supply had increased relative to beef supply, a relative decline in lamb prices would ordinarily be expected and might be explainable as a normal supply-demand relationship. In fact, the opposite occurred; lamb supply per capita was down by almost one third, whereas beef supply per capita had increased slightly. One possible reason why the relative price change was in the opposite direction to that normally expected is that customers with rising money incomes responded differently in purchasing beef as against lamb. The evidence available strongly suggests this possibility.

Between 1942 and 1948 consumer incomes in current dollars moved upward, in over-all terms, by about 60%. Apparently every income group tried to increase or at least maintain its consumption of beef. In general, however, since the 1948 supply of beef per capita was only slightly larger, the effect of the increased demand was a strong upward pressure on prices, leaving the pattern of beef consumption among the various income groups about the same as in 1942.

With respect to lamb, the picture is somewhat different. With a smaller supply, total consumption obviously had to be reduced, but the reductions were not equally shared among the various income groups. The small consumption of the low income groups was about the same in 1948 as in 1942; similarly, the much larger consumption rate of the highest income groups was maintained. But lamb consumption by the intermediate income groups had declined in 1948 to approximately one half the 1942 consumption level.

It would appear, then, that the intermediate income groups did not use their enlarged buying power to increase lamb consumption; rather, with greater buy-

ing power, they apparently turned more to beef and to other meats. For example, the 1942 income group, \$2,500 to \$3,000, used approximately 16 pounds of lamb per person. Most of this segment of the population would likely be found in the range \$3,000 to \$5,000 in terms of 1948 incomes; however, the 1948 consumption of this latter income group was only a little over five pounds.

This failure of the intermediate income groups to maintain their proportionate prewar consumption of lamb, even though enjoying larger incomes, probably helps to explain the divergent supply-price relationship of lamb as against beef. These income groups constitute more than half of the total population, and hence their weakened demand has a very significant influence.

Over the past several years, lambs have been moving to market at continuously heavier weights. California, particularly, produces lambs that are above both prewar and current national average weights. This trend toward heavy lambs—the result of better production methods, including permanent pastures, supplementary feeding, etc.—is in conflict with customs and preferences of retail dealers and consumers. This may, in part, account for the weakening of demand.

Heavy lambs produce large legs of lamb. Legs of lamb are traditionally sold as single cuts for roasting. For the family trade, legs of five to seven pounds are preferred, and when the weight reaches nine pounds and over, considerable resistance is encountered because the cut becomes excessive both in total price and in poundage. These large legs are no problem to the hotel and restaurant trade because here large cuts are generally preferred. But the proportion of heavy lambs

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edible portion of the spear is left in the field.

In California the spears are trimmed mechanically in the cannery to the desired length rather than hand snapped as in the East. Therefore, snapped spears would not save labor except in butt disposal. Since the snapped spears are of unequal length there is a loss of usable asparagus when trimmed to equal lengths. Thus the cost to the canner on the actual asparagus canned would be increased proportionally to the loss in trimming.

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APHID

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is not applied against the aphids, the predators may well be in a position to check the infestation before too much damage is done.

Caution Required

Although the results obtained with the speed-type sprayer look very promising, further investigations are very much needed: the effect of parathion and tetraethyl pyrophosphate upon predators and parasites has not been determined adequately; effects upon bird and other wild-life have not been ascertained; it is not known whether continued use will result in plant injury or in the increase of another pest; and, until some of these possible problems are more fully understood, commercial use of these materials should proceed with caution.

Exceptionally good control of the aphid was obtained where tetraethyl pyrophosphate was applied as a smoke aerosol. Despite this, it is considered too hazardous to warrant a general recommendation because there is no way of controlling the drift of the smoke.

Because of the extreme toxicity of tetraethyl pyrophosphate and parathion to human beings, these insecticides should be used and handled with caution. The precautions as given by the manufacturer should be followed carefully.

Highly satisfactory control of the walnut aphid can be obtained where nicotine dusts are applied under favorable weather conditions. Treatments should not be applied during periods of unsettled cool weather, for poor control will result, making frequent treatments necessary. This should be avoided because observations indicate that trees covered with an excessive amount of dust are more subject to serious attacks by orchard mites than are those which are covered with only moderate amounts of dust.

No matter what method is used, satisfactory control of aphids will result only

where the proper dosage is used and the insecticide is evenly and thoroughly applied.

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LAMB

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being marketed has become so large that retail trade disfavor has resulted in a producer price penalty recently amounting to approximately 2½ cents per pound live weight on lambs dressing at 48 pounds and above.

When feed supplies are available, both producers and feeders try to utilize it through heavier weight lambs. With increasing feed supplies in prospect for the next several years, this pressure will probably continue and intensify.

The attitudes of retail meat dealers towards heavy lambs vary all the way from outright refusal to handle them at any price to a willingness to handle them even at the same price as lightweight carcasses. The position of the bulk of the trade seems to lie between these extremes—they are willing to handle a limited number of heavy lambs at a wholesale price differential of four to eight cents per pound below the lighter weights.

Habit and custom of both the retailer and his customers apparently bear heavy influence. Some retailers have experimented with cutting lamb steaks from the heavy legs; others have tried cutting the leg in two parts. The latter method has been more successful, particularly in the self-service market, where the customer can easily see the cut in a cellophane package.

Some retailers will refuse any experimentation whatever and are certain that cuts of these types have no prospect of selling.

Lamb consumption patterns, extremely variable in character and under the heavy hand of habit and custom, have for years confronted lamb producers and distributors with perplexing problems. To these are now added the questions of why demand for lamb by the middle income groups has declined, and what to do about marketing heavy lambs. These questions deserve investigation for the prospects are that the supply of lamb will increase towards its prewar relative position and that feed and production conditions will be favorable to heavy lambs.

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BEET

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eggs. About two days elapsed between mating and egg laying and adults lived about two weeks. The egg period varied from five to six days at mean average temperatures of from 74° F to 78° F.

At least two generations occur in the field a year. Under caged conditions at a mean average temperature of 76° F, a complete life history was completed in from 34 to 39 days.

Two larval parasites were found during 1949 but parasitism was extremely low as shown by the fact that only four specimens representing two species—a tachinid and a hymenopterous parasite—were recovered from thousands of larvae collected.

Control

A series of replicated plots was treated by means of rotary hand dusters and compressed air sprayers during July, 1949, at Woodland. The chemicals were applied when the beets were four to five inches high. These experiments indicated that DDT and parathion both as dusts and sprays showed promise and should be included in future experimental work. DDT as a 10% dust at the rate of 90 pounds per acre was effective as was a 50% wettable DDT powder applied as a spray at the rate of two pounds per 88 gallons of spray per acre. A 2% parathion dust at the rate of 107 pounds per acre, and a parathion spray of two pounds of 20% wettable powder to 88 gallons of spray per acre, were also effective. Under the conditions of this experiment the other materials used were not as effective as DDT and parathion. In order to secure adequate control it was found necessary to concentrate the chemicals at the bases of the plants.

Control of the caterpillars attacking broccoli was difficult, although the repeated application of DDT sprays concentrated in the plant rows was fairly successful.

The periodicity of abundance of this insect makes it difficult to predict its future economic status as a sugar beet pest in California. Damage to sugar beets in 1949 was correlated with time of planting. Beets planted in May and June were in a more susceptible stage of growth during July and August than those planted prior to this time. During years when beets can be planted prior to May and June they usually will be established firmly prior to abundance of the crown borer.

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