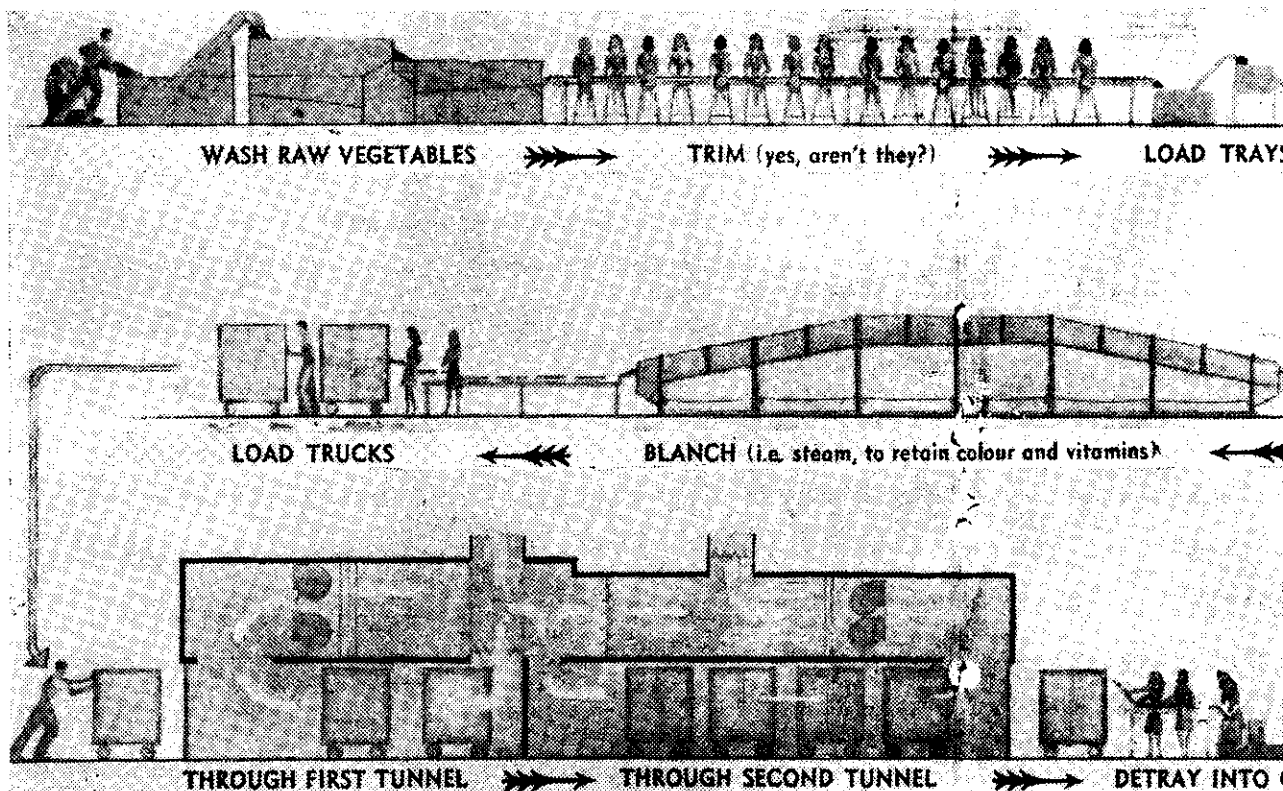


# MULTUM IN PACKAGES: Dehydration

**SNIPPETS** about food dehydration have appeared so frequently through the past year that the more slow-witted among us are realising that it is an established fact just as the original enthusiasts are wondering if after all it is much use. A.M.R., set to work by "The Listener" to discover where dehydration really stands to-day, makes this report:

**A**N acquaintance of mine recently returned from mountaineering on a packet of dehydrated meat (product of Feilding). "Why," said he, "it was just pemmican, very good pemmican, almost precisely the stuff Lincoln Ellsworth made for explorers." Pemmican, as every schoolboy knows but most adults have forgotten, was the pounded meat dried by the Eskimos and Red Indians to use in winter and upon long journeys. Occasionally, farmers in the U.S.A. dig up blocks of it, anywhere up to two feet square, that were cached unknown decades or centuries ago, and find them still not completely inedible. Housewives, of course, have sun-dried various fruits since house-keeping began. Fishermen have kippered fish. And a Highlander's sporran, usually translated *purse*, more often carried oatmeal and a slab of smoke-cured flesh than the King's currency. But successful dehydration on the grand, scientific, mechanical scale is something brand-new with this war.

Space saving is its essential reason. As Mr. Bankes Amery put it during his present tour: "We estimated in Britain that we were importing about three million tons of water into the country every year. So, since we already had plenty, we decided to cut water out as far as possible and use the space it took on ships for solid food." But now that the war has passed into an attack phase, dehydration's frontline function of providing lightweight provender where fresh food would decay and cans become poisonous with rust, is equally important. With so many refrigerated ships lining the Atlantic floor and most of the world's tin in Japanese hands, the ability of dried food to travel in cardboard battledress also means much. And just as "telescoping" carcasses (i.e., boning and moulding them) freed 41 million cubic feet of shipping space to carry something else to Britain last year, so dehydration cuts out cores, skins, tops, and other waste weight before shipment, instead of on the kitchen bench at the end of the journey. Moreover, it puts food into a form where it can be further condensed by



compression. And this block food in turn needs only a paper wrapper in place of the previous tin or carton.

All of which, expressed as a total, means that Britain got the value last year of three-quarters of a million tons of food without any crane or wharfee having ever to lift it off or into any ship.

## Eating the Stuff

That is how dehydration appears to High International Policy. But what do Sam Soldier and Mrs. English, who, after all, eat the stuff, think of it?

A good deal of the last war's dried food looked, and tasted, like bootblack. Some of it—and evaporated rations were used as far back as the American Civil War of 1861-65—was recognisable as food to both eye and palate, but could never have slunk past a modern nutritionist. However, in present-day processing expert investigation gives the Vitamin C losses as between 50 per cent for turnips and 34 per cent for potatoes—which means that the more stable bulk constituents stand up to treatment a great deal better than this. Laboratory tests, moreover, show that dried foods, even when packed only in cardboard, deteriorate hardly at all for the first nine months when stored in an ordinary cool place, and last up to 18 months if kept around 30 degrees F.

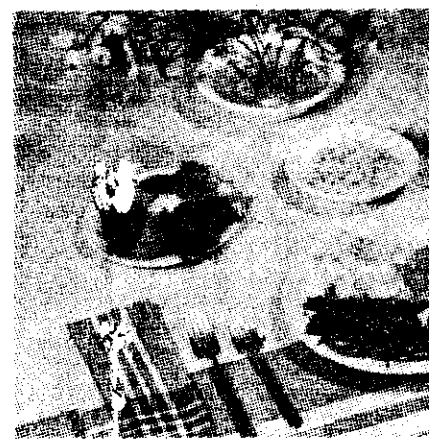
As for palatability, it is on record that many folk have eaten dehydrated food without knowing what it was, and have noticed nothing unusual. One R.A.F. mess left cooked fresh cabbage on their plates but wolfed all the dehydrated cabbage. Such tests are being all the while carried out by the various services of the United Nations. Results vary. Partly they depend on the factory that processed the food, and a few factories have accordingly had to shut down or alter their methods. But mainly they seem to depend on the cook. Dehydrated foods can no more be prepared

in the same way as (say) canned goods than frozen meat will respond to the same kitchen treatment as fresh meat. Statistics, however, give proof. For they show that all governments are pushing ahead with their dehydration projects. We shall have four plants here in New Zealand this year, instead of one last year, and none the year before. Britain has 30. Australia has 32. Canada dehydrated four times as much in 1944 as 1942. While U.S.A.'s 20 factories of May, 1942 were 188 by May, 1943, and are scheduled to double again by next month. Every twelfth pint of milk and every third egg are already being dehydrated in America. And 18,000,000,000 pounds of their vegetable crop is earmarked for the Tunnel. Obviously, Dehydration Has Arrived.

## Handy on Hills

But will all these factories be needed when peace returns? It is most unlikely. Dehydrated vegetables and fruit, even when dry, look good—carrots bright red-orange, spinach rich green, beets deep red. When "reconstituted" and cooked, they resemble their fresh counterparts almost completely. But we would normally no more confuse their

**SUPER-COMPRESSION** (for men)  
"Telescoping" reduces a carcass occupying 6 c.ft. to 1 c.ft.  
Dehydration reduces it to 1 c.ft.  
Compression to 3/5 c.ft.  
The 280lb. potatoes below normally compressed to 100lb. in a matchbox. But this degree of compression has been carried much further, the nutriment, the temper, and the ki



Fresh-looking green beans, mashed potatoes, dried peas and pears—all dehydrated—making a meat cake added.

DEHYDRATED



NOT DEHYDRATED



It is estimated that when the food is dehydrated, one ship will carry as much as six. Moreover, refrigeration is not required.

## HOW WEIGHT EVAPORATES (for Col. Llewellyn, Minister of Food)

lb.	Fresh	"Telescoped" or "Trimmed"	Dehydrated	Cooked	Helpings
Beef	150	112	37	—	—
Cabbage	875	490	50	280	1400
Carrots	700	500	70	350	1500
Potato	280	210	50	140	560

One  
Carr  
Beet  
Cabb  
Food  
To s