Name of Proprietor & distillery	Location	Type of alcoholic ~~products~~	Brand of ~~Products~~
S. Aihara, Tawaraya	Kitayamadamura, Kuzugun	Sake & Shochu	Taihou

9. Under the jurisdiction of Nakatsu Taxation Office

K. Shigematsu, Kiya	Shimomiyanaga, Nakatsu city	Sake, Shochu & Shirosake.	Senkyo
G. Nagayoshi,	" "	"	Senjyo Yukinotomo
R. Shimazawa, Shimazawa G. K.	Shimada, "	~~Sake~~ & Shirosake	Hatsuyuki
R. Bukichi,	Manda, "	Sake & Shochu	Fukujyu Toyonoka
H. Naka	Nakadono, "	Shochu	Asahi
K. Murakami, Ichiten ShuzojG. K.	Wadamura, Shimokegun	Sake & Shochu	Ichiten
S. Murakami,	" "	Shochu	Fukubijin
S. Shimizu	Mihomura, "	Sake & Shochu	Mihozuru Mihoka
H. Hida	Higashiyabakeimura, "	"	Yabamasamune
K. Sagara, Marusa	Shimozatomura, "	"	Tamaizumi
S. Ono,	Masakamura, "	Wine	
K. Shigematsu, Kiya Nakatsu Shuzo Yugen K.	Shimomiyanaga, Nakatsu city	Sake	Senkyo

K. Murakami, Ichiten ShuzojG. K.	Wadamura, Shimokogun		
S. Murakami,	" "	Shochu	Fukubijin
S. Shimizu	Mihomura, "	Sake & Shochu	Mihozuru Mihoka
H. Hida	Higashiyabakeimura, "	"	Yabamasamune
K. Sagara, Marusa	Shimozatomura, "	"	Tamaizumi
S. Ono,	Masakamura, "	Wine	
K. Shigematsu, Kiya Nakatsu Shuzo Yugen K.	Shimomiyanaga, Nakatsu City	Sake	Senkyo
G. Nagayosni	" "	"	Senjyo

10. Under the jurisdiction of Yotsukaichi Taxation Office

S. Shigematsu	Anshinimachi, Usagun	Sake & Shochu	
" &	Ryokawamura, "	"	
M. Takada	Yotsukaichimachi, "	Sake	
"	Usamachi, "	"	
E. Komatsu	Nagasumachi, "	"	
"	Yamagikeuramachi, "	"	
T. Takahashi	Nagasumachi, "	"	
K. Hayada	Yokoyamamura, "	Shochu	
K. Yotsuya	Nagasumachi, "	"	
T. Kahi	Takadamachi, Nishi Kunisaki mura,	Sake	
T. Koremaga, Seibu Shuzo YUgen K.	" "	Sake & Shochu	Kikugoromo
Shiragatanara jinjya	Tanaramura, "	Dobusake	
S. Yamashita, Nippon kansho Seikyo K.K.	Takadamachi, "	Shochu	

Name of proprietor & distillery	Location	Type of alcoholic products	Brand of products
S. Shigematsu	Takanamimura, Usagun	Sake	
M. Takada	Toyokawamura, "	"	
"	Yahatamura, "	"	
E. Komatsu	Nagasumachi, "	"	
"	" "	"	
"	Yanagikeura, "	"	
T. Takahashi	Nagasumachi, "	"	
T. Kahi	Takadamachi, Nishikumizuki gun "		

"Cooking of Imported Food"

Edited by
Welfare Ministry

Published by
Agriculture and Forestry Ministry

Contents:

(1) Corn-flour

(2) Fresh Powder of Soy-bean, freeing from fatty matters

(3) Millet

(4) Green-Bean

PREFACE

We are working to increase food-production with all our might, but it is inevitable for us to import some quantity of food. However, as there are some kinds of food among them which we have not yet used to eat; when we do not know the method of combination and cooking of them, there may be occured not a few cases which the precious materials on purpose lose their own usefullness on the contrary. And so it is necessary for us to have proper knowledge of their skillful treatment. Furthermare, we think that the skillful utility of these imported food express our thanks for the kindness of Allied Powers.

Therefore, we combined with Welfare Ministry, Agriculture and Forestry Ministry and Education Ministry, and moreover gaining the cooperation of national nourishment Study Institute, Food Study Institute, Tokyo Metropolis, Love and Breed Study Institute, Food and Nourishment Study Institute, etc., have continued to study cooking of imported food and to inform generally it through newspapers and/or radio on every chance; however, as having received hoping informations from every port, now we are to print necessary materials ofter arrangement of them without delay. We are sorry that there may be some shortage of preparations in contents of this pamplet owing to the affair which we made haste to publish it, but we intend to reform and correct these points after studying much more in the future. It is requested that you, who will read this pamplet, would instruct or suggest any points of doubt or attention and any method which you are carrying on it devised otherwise.

As you know, shortage of papers has reached the utmost and therefore we could only print the limited number of this pamplet, from this point it is requested that you, who touches with this pamplet, would read altogether as many as possible and would co-operate in spread and propaganda on "Proper Cooking Method of Imported Food."

PREFACE

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厚生省編
農林省發行

輸入食糧の調理法

其の一　玉蜀黍粉
其の二　生大豆粉
其の三　マイロ粉
其の四　グリンピース

私共はあらゆる努力をはらつて食糧の増産に努めておりますが、或る程度の食糧はどうしても輸入にまたねばなりません。しかしながら輸入食糧の中には、私共が日常食べなれておらぬ食物が相當ありますから、その組合せや調理方法の如何によつては、折角の貴重なものがかえつて無駄になる場合が少なくないので、これ等の上手な使い方について正しい知識を持つことが必要であります。又これ等の輸入食糧を上手に利用することこそ、連合軍の好意に對する感謝を現すものに外ならないと思います。

そこで厚生省、農林省、文部省合同で、それに國立榮養研究所、食糧研究所、東京都、愛育研究所、食養研究所等の協力を得て、輸入食糧の調理研究を重ね、その都度新聞紙上或はラヂオを通じて一般に知らせたのでありますが、各方面からの要望もありますので取あえずそれ等を一括して上梓したわけであります、この内容につきましては發表を急ぎました爲多少の不備があるものと思われますが、これ等の點は、今後更に檢討の上改めてゆきたいと思つております。本書をお讀みになる皆さんも、御不審や、御氣付きの點、又これ以外に皆さんが工夫し行つている方法がありましたら御教示いただきたい。

御承知のように最近用紙の逼迫はその極に達しておりますので、このパンフレットもまことに限られた部數でありますから、取扱われる方も出來るだけ多勢の人に見せ合つて、輸入食糧の正しい食べ方の普及宣傳に御協力下さるようお願い致します。

その一　玉蜀黍粉

玉蜀黍は粉として配給されることになつておりますが、時としてはやむなく粒のまゝ配給されることがありますから、その場合は出來るたけ粉にして使つていたゞきたいものです。

現在、日本で製粉している方法には、ロール式によるものと、衝撃式によるものとの二種類がありまして、ロール式によるものは胚芽と外皮とを出來るだけ除いていますが、衝撃式によるものは全粒粉で、油分はロール式に比べて多く含まれています。共に長く保存しておきますと酸味や苦味が出て來ますから、配給されましたら早く食べるようにしていたゞきたいのです。

この玉蜀粉と七分搗米の榮養價を較べて見ますと次の通り大體似ております。（一〇〇瓦中）

榮養素 / 食品名	水分	熱量	蛋白質	脂肪	含水炭素	燐	鐵	ビタミンA	ビタミンB1	ビタミンB2	ビタミンC
	グラム	カロリー	グラム	グラム	グラム	ミリグラム	ミリグラム	國際單位	ガンマー	ガンマー	ミリグラム
七分搗米	一三・二	三五〇	七・二	一・三	七七・一	三八	一	〇	二五	六〇	〇
衝撃式玉蜀黍粉	一二・〇	三六五	九・一	三・七	七三・九	二六	三	五一〇	四五	一七〇	〇

熱量は一〇〇瓦中三六〇カロリー前後で、米と大して變りませんが、蛋白質や脂肪、ビタミンAなどは米よりもかえつて勝れております。しかし食餌としてはお米と同樣野菜類、動物性食品等と一緒に採ることが大切であります。尙この際一日の配給量、一回の食餌量に就てそれを米と比較して見ますと、

食品名	一日配給量	一回食量	同上容量
玉米	三五五瓦	一一八瓦	八勺（一合一四〇瓦）
玉蜀黍粉	三五五瓦	一一八瓦	一合二勺（一合一〇〇瓦）

このように、米でしたら八勺食べるところを、玉蜀黍粉だら一合二勺食べるということになります。

玉蜀黍粉を食べて下痢をしたということを聞くことがありますが、これは多く火の通し方に不充分なことが原因しているのではないかと思われます。玉蜀黍粉だけを水でといてパンや餅子に作りますと固くしまつて中まで熱が通りませんから注意して欲しいのであります。

以下適當と思われる調理法數例をかゝげて見ます。

1、雲　　糖

(イ) 半分糊化する方法

玉蜀黍粉	一	合（一〇〇瓦）
熱湯	一	合（一八〇瓦）
重曹	茶匙半	杯（一　瓦）
鹽	茶匙半	杯（一　瓦）

鍋に分量の湯を沸かし、鹽を入れ、これに粉の半量を加え、手早くしゃもじで煉りまぜる。粘り氣が出たら火からおろして冷ます。殘りの粉に重曹をまぜ、これを冷めた煉りものにまぜ合せる。これを卵大に丸めて兩面を焼くか、强火で一五分間蒸す。

註　殘りの粉を煉りものに混ぜるとき、煉りものはよく冷めていなければならない。これは重曹の效力が減ずるからです。

(ロ) 水で浸す方法

玉蜀黍粉	一合	(一〇〇瓦)
水	七勺	(一三〇瓩)
重曹	茶匙半杯—一杯	(二—二瓦)
鹽	少々	(〇・五瓦)

粉と水とをまぜ、弱く泡立つまでおく。(夏なら室温で約一〇時間を要し、秋、冬はなるべく温い場所へおき、醗酵するまでまつ)

重曹と鹽とを少量の水で溶き、醗酵した玉蜀黍粉に手早くまぜ合せ、フライパンにホットケーキ位の厚さに流して兩面を焼く。

大量を作る場合は全量を一度にフライパンに流すと、裏返しするとき崩れ易いから、二人分位づゝに分け、鍋ごとに重曹を加えては流して焼く。(全部に重曹を入れてから一鍋づゝ焼いてゆくと、後になる分はガスが抜けて效き目がなくなつてしまう。)

2、餅

(イ) 煉り餅

玉蜀黍粉	一合	(一〇〇瓦)
熱湯	一合	(一八〇瓩)

鍋に湯を沸かし、粉を入れて、しやもじでかきまわしながら充分粘りが出るまで煮る。蓋をして約一五分間蒸らし、これをよく搗いて適當の形につくる。このまゝ食べてもよく、又燒いてもよい。

(ロ) 蒸し餅

玉蜀黍粉	一	合（一〇〇瓦）
熱湯	一	合（一八〇竓）

熱湯と粉とをまぜ、小さくちぎり、中くぼみの形にして、一五分間蒸す。これを熱いうちによく搗き、蒲鉾形にまとめる。切つてこのまゝ食べてもよく、又燒いてもよい。

註　これ等のお餅は、お團子に丸めて黄粉、胡麻、又は各種餡等をまぶしてもよく、かしわ餅のようにこれを皮として色々のものを詰めても面白い。

滿洲では、玉蜀黍粉を一晩水に浸け、翌朝水を流し、同量の大豆粉を加え、蒸して搗いたものを食べるそうです。

(ハ) 玉蜀黍米

蒸し餅の蒲鉾形にまとめたものを、粗い篩目の裏漉を通して押出し、これをよく乾燥し手揉みすれば、粒狀の所謂玉蜀黍米が得られます。

蒸し餅は、夏季等に腐敗が早く、翌日迄持たすことが困難な場合すらありますから、玉蜀黍米に作つて保存しおき、炊いて食べること等も知つておいて欲しいのです。

3、お燥り

玉蜀黍粉	一	合（一〇〇瓦）
熱湯	二	合（三六〇竓）
鹽	茶匙半	杯（一　瓦）

鍋に湯を沸かし、鹽を入れ粉を加え、しやもじでかきまぜながら粘りが出るまで充分火にかけて煉り、このまゝ食べる。又は粉一合に對して熱湯四—五合を用いて、ゆるいお煉りを作り、辨當箱等に流し固め、これを適當に切り味噌、醬油などをつけたり、フライパンで兩面燒きして食べてもよい。

尙次のように、芋、南瓜、野菜類等を入れたお煉りも又いゝものです。

玉蜀黍粉	一	合（一〇〇瓦）
芋類	適宜	
熱湯	三—四	合（四五〇—六二〇竓）
鹽	茶匙二	杯（四　瓦）

鍋に湯を沸かし、鹽を加え、芋等を入れ、軟くなつたところへ粉を加え、煉りまぜながらよく煮て、最後に味を調える。

4、粥及び重湯

(イ) 全粥

玉蜀黍粉	一	合（一〇〇瓦）
水	二	合（三六〇竓）

熱湯　一合（一八〇㍑）
重曹　茶匙半杯（一五）
鹽　茶匙一杯（二一五）

水に重曹を溶き、これに粉をまぜる。鍋に湯を沸かし、次に溶いた前の粉を流し入れ約一〇分間かきまぜながら煮る。蓋をして二、三〇分間蒸らす。

(ロ) 五分粥

玉蜀黍粉　一合（一〇〇瓦）
水　二合（三六〇㍑）
熱湯　三合（五四〇㍑）
重曹　茶匙半杯（一五）
鹽　茶匙二杯（四五）

作り方は(イ)と同様、鹽は好みにより適宜加減する。

(ハ) 重湯

玉蜀黍粉　一合（一〇〇瓦）
水　二合（三六〇㍑）
熱湯　一升一合（二〇〇〇㍑）
重曹　茶匙半杯（一五）

鹽　　茶匙三杯（六　瓦）

作り方は(イ)と同樣、鹽は好みにより適宜加減する。

5、すいとん

玉蜀黍粉　一　合（一〇〇瓦）

熱　湯　一　合（一八〇瓦）

粉を熱湯で煉り、適宜に丸めて味噌汁、野菜汁等の沸騰している中に入れ、浮んでくるまで煮る。

以上は玉蜀黍粉を主にした調理法の數例でありますが、勿論小麥粉、芋粉、大豆粉、その他の雜粉類や、芋類、南瓜等を一緒に使えば味もよく、調理し易く、又色々變化のあるものが出來ますので、各地方で得られるものを適當に配合して上手に色々と工夫していたゞきたいと思います。

其の二　脫脂生大豆粉

脫脂生大豆粉は、特に蛋白質の缺乏甚だしい今の食糧事情では、榮養上極めて意義深いものでありますから、充分この價値を發揮するよう、食べ方を工夫いたしましよう。

この粉は主食として米と同量差引で配給されますが、その榮養價は次に示すとおり米とは大變違つております。（一〇〇瓦中）

食品名 ＼ 榮養素	水分	熱量	蛋白質	脂肪	含水炭素	カルシウム	燐	鐵	ビタミンA	ビタミンB_1	ビタミンB_2	ビタミンC
	グラム	カロリー	グラム	グラム	グラム	ミリグラム	ミリグラム	ミリグラム	國際單位	ガンマー	ガンマー	ミリグラム
七分搗米	一三・三	三五〇	七・三	一・三	七七・一	二六	三九	一・三	〇	二五〇	六〇	〇
脫脂生大豆粉	九・〇	二八五	四二・五	六・五	一三・六	二四四	六一〇	二一〇	二一〇	八二〇	三四〇	〇

このように蛋白質は米の約六倍ほどありますから、一日中大豆粉を御飯がわりに食べますと、それだけで蛋白質の必要日量八〇瓦の約二倍にも達します。もと〳〵蛋白質は人體にとつてはなくてはならないものですが、必要以上にとる時は却つて害になります。それ故、大豆粉は一日に配給量の約三分の一位までとし、あとの三分の二位は小麥粉その他の穀粉類や芋類等を使うように致しましよう。やむを得ず一食に大豆粉だけを攝る場合は副食として魚や肉等はなるべく避け、野菜類を充分に攝ることが必要であります。

大豆粉とお米の容量は左のように多少違いますから注意を要します。

食品名	一日配給量	一回食量	同 上 容 量
米	三五五瓦	一一八瓦	八 勺（一合 一四〇瓦）
大豆粉	三五五瓦	一一八瓦	一合五勺（一合 約八五瓦）

調理にあたつては大豆粉は火が通りにくいので、加熱時間を充分にし、全體によく熱が通るように氣をつけます。火のよく通らないものを食べたり量を多く攝りすぎたりすると下痢をすることもあり

ますから注意しましよう。

大豆粉は、小麥粉や玉蜀黍粉と性質が違つて蛋白質に富んでいることは前に述べた通りでありますが、この特性を利用して色々な調理法が工夫されています。

以下調理法をかゝげてみましよう。

1、パン

(イ) 電流パン

大豆粉	一合	(八五瓦)
水	一合	(一八〇瓩)
重曹	少々	(〇・五瓦)
鹽	茶匙輕く一杯	(一・五瓦)

材料の全部をまぜ合せ、電流パン器に流し込み燒き上げる。

大豆粉だけでもパンが出來るが、榮養的にも、食味の上からも小麥粉、玉蜀黍粉、芋粉等をまぜ合せて用いるがよい。まぜる割合は、大豆粉を二—三割程度にするのが望ましいが、都合に依りどのような割合にまぜてもよい。又この中に煮たグリンピース、小豆、角切りの芋や南瓜等を入れて燒くと趣がかわる。

(ロ) 蒸パン

大豆粉	三匁	(二六瓦)
小麥粉	七匁	(七〇瓦)

水　六匁（一〇〇瓩）
重曹　茶匙半杯（一瓦）
鹽　茶匙半杯（一瓦）

大豆粉と小麥粉とをよくまぜ、別に重曹と鹽とを水に溶かし、兩者を輕くまぜ合せ、五、六個の小形に丸めて約二五分間蒸す。

小麥粉と大豆粉の割合は任意にしてよい。

大豆粉だけでも出來ないことはないが、加熱時間は少し長くしなければならない。」

(ハ) イーストパン

大豆粉　三匁（二六瓦）
小麥粉　七匁（七〇瓦）
微溫湯　四匁（七〇瓩）
乾燥酵母　茶匙一杯（二瓦）
鹽　茶匙半杯（一瓦）

大豆粉と小麥粉をよくまぜる。酵母を少量の微溫湯（攝氏三〇度）に溶き泡立つまでおく。殘りの水に鹽を溶かし粉とまぜ酵母の泡立つたものを加えてよく揑ねる。生地は手水又は手粉を使つて耳朶位の軟かさに仕上げる。これを丸めて二倍大に膨れるのを待つて燒いても蒸してもよい。

2、お煎り

大豆粉	一	合（八五瓦）
水	三——四	合（五四〇—七二〇瓩）
鹽	茶匙一杯半（三	瓦）
馬鈴薯	三—四	個（四〇〇瓦）

鍋に湯を沸かし亂切りの馬鈴薯を入れ、軟くなつたら鹽を加え、粉を一度に入れかきまぜながら弱火（一〇—一五分間）でよく煮る。

馬鈴薯は半分崩れた位が食べごろです。

馬鈴薯のかわりに他の芋類や南瓜を用いたものもよく、又野菜等を入れても變つたものが出來る。

勿論、大豆粉だけ使うよりも、玉蜀黍粉其の他の穀粉類をまぜて使う方がよい。これを丸めてフライパンで兩面燒してもよい。

3、すいとん

(イ) すいとん

大豆粉	一	合（八五瓦）
熱湯	五	勺（九〇瓩）
野菜汁		

大豆粉に熱湯を注いで煉る。これを適當に丸めて沸湯した野菜汁に落して浮び上るまで火にか

ける。

(四) 變りすいとん

大豆粉	七	匁（六〇瓦）
小麦粉	三	匁（三〇瓦）
水	五	匁（九〇瓦）
重曹	茶匙半杯	（一瓦）
鹽	茶匙半杯	（一瓦）
野菜葛餡		

大豆粉をよく炒り、全部の材料を合せてよく練り、白墨位の太さにのし、三糎位に切り、熱湯で浮び上るまで茹る。これに野菜葛餡をかける。

4、短麺（ほうとう）

大豆粉	三	匁（二六瓦）
小麦粉	七	匁（七〇瓦）
水	三	匁（六〇瓦）
鹽	茶匙半杯	（一瓦）
野菜汁		

大豆粉と小麦粉をまぜ、鹽と水とを加えてよく捏ね、薄くのばして細く切る。野菜汁に入れ、火の通るまで煮る。

5、シューマイ

大豆粉	一	合（八五瓦）
水	七	勺（一三〇瓩）
魚	少	〃
葱	一〇	匁（四〇瓦）
人參	三	匁（一〇瓦）
鹽及胡椒	適宜	

大豆粉を水で煉つておく。魚は燒いてほぐす、野菜はこまかに切る。全部煉り合せ、鹽、胡椒で調味し、シューマイの形として蒸すか又はフライパンで燒く。この時片栗粉をまぶせば艶が出る。ソースを添へて食べる。

6、寄せ豆腐

大豆粉	一	合（八五瓦）
水	三	合（五四〇瓩）
食酢	大匙二杯	（二一〇瓩）

鍋に湯を沸かし、大豆粉を加え、泡立器かしやもじでかきまぜながら豆乳のにおいがし出すまで約一五分間弱火で煮る。火からおろし熱いうちに食酢を少しづゝ加えて蛋白を凝固させ、これをそのまゝ容器に入れて固めるか、布巾にあけて輕く押し水氣を切る。適當に切り豆腐と同樣に使う。酢はその濃さに依つて使用量を加減する。

豆腐をよせるときに茹でた野菜等を入れてもよい。

凝固剤について参考迄に志村氏發表のものを掲げる。

大豆一瓩につき

苦鹽汁	二倍に薄めたものを五勺位。
固形苦鹽	一〇〇匁を水五合に溶かしたものを二勺位。
硫酸苦土（含利鹽）	一五匁を水五合に溶して加える。
鹽化石灰	一〇匁を水二勺に溶かして加える。
石膏（硫酸石灰）	豆の重量の五パーセントを水溶きしたもの、
梅酢	六合に石灰四—五匁を加えた上澄液。
食酢	醋酸三パーセント含有の食酢三合に石灰四匁を加えた上澄液、使用する場合は濃度の高い方がよい。

7、納豆

大豆	一合（八五瓦）	
水	五勺（九〇瓩）	
藁又は桑の葉、納豆菌等	適宜	

大豆粉に熱湯を注ぎ、數本の箸でかきまわし、ぼろ〳〵の小さい塊とする。これを約二〇—三〇分間蒸す。

笊又は箱に藁を敷き、その上に蒸した大豆粉を擴げて、上から又藁をかぶせて周圍を毛布樣のもので覆い、攝氏四〇度前後に保溫する。一晝夜—一晝夜半で出來る。

納豆菌を使う場合は普通の納豆少量を洗い、その水を蒸した大豆粉の上にふりかけ箱にとり、後は前と同樣にする。

又藁も納豆もない場合は、桑の葉を使つて藁同樣に作つても大變よいものが出來る。

出來た納豆に約一〇パーセントの鹽をまぜておくと、夏でも約一ケ月位は保存が出來る。

8、味　噌

(イ) 麥麹味噌

大豆粉	七合	(六〇〇瓦)
壓搾大麥	五合	(六〇〇瓦)
熱湯	七合	(一三〇〇瓦)
鹽	六〇匁	(二二〇瓦)

麹の作り方　壓搾大麥を洗つて二〇—三〇分間水に浸け、笊にあげておく。これをよく蒸してバットか廣蓋樣の箱に移し麹菌をつけて輕く擴げ、周圍を毛布樣のもので覆い、攝氏三〇度位に保溫する。一晝夜か一晝夜半で麹が出來る。

大豆粉に三合の熱湯を注ぎかきまわしてぼろ〳〵になつたものを二〇—三〇分間蒸す。殘りの湯で鹽を煮溶かし、冷めない中に麹と大豆粉を一緒にして仕込む。

(ロ) 醋味噌

大豆粉	六合	(五〇〇瓦)
甘藷	一二〇匁	(四五〇瓦)
湯	五合	(九〇〇瓦)
鹽	四五匁	(一七〇瓦)

大豆粉は三合弱の熱湯を加えて前同様に蒸す。

甘藷は蒸して潰すか裏漉しにかける。殘りの湯で鹽を煮溶かし、藷と大豆粉を一緒に仕込む。これに古味噌を全體の一割ほど加えるとなおよい。

9、汁物

(イ) 呉汁

(ロ) シチウ

大豆粉を味噌汁に溶かし入れて呉汁のようにしたり、小麥粉のかわりにしてシチウ等を作ることが出來る。

10、サラダ

大豆粉	五匁	(四〇瓦)
水	一合	(一八〇瓦)
鹽、酢、油、胡椒、辛子	適宜	
野菜	適宜	

大豆粉を油で輕く炒つて水と鹽を加え、のばして火にかけよく煉る。

冷めてから酢を少しづゝ加え、胡椒、辛子等で味を調える。これを野菜で合える。

11、代用乳

大豆粉	五	瓦（小匙輕く山二杯）
小麥粉	九	瓦（小匙輕く山四杯）
油（バター、純良な植物油）	二	瓦（小匙スリキリ一杯）
スープ（又は水）	六	勺（一〇〇瓩）
砂糖	五	瓦（小匙スリキリ二杯）

油を鍋に入れ泡がなくなるまで火にかけ、これに大豆粉と小麥粉を入れてうすくこげるまで炒め、更にスープを少量づゝ加えて粒々のないようにのばし、約五分間かきまぜながら弱火にて煮る。出來れば砂糖味、なければ鹽味とする。なお乳兒で炒らない方をよく食べる場合は焦がさずによく煮て用いることが必要です。

附記　この代用乳一〇〇瓦は蛋白質三・六瓦、脂肪二・九瓦、含水炭素四・六瓦、熱量六〇カロリーで大略牛乳に似た成分をもつている。

又油がないときは次の分量で同樣に作る。

大豆粉	七	瓦（小匙輕く山三杯）
小麥粉	一〇	瓦（小匙輕く山四杯）
スープ	六	勺（一〇〇瓩）
砂糖	五	瓦（小匙スリキリ二杯）

これを人工栄養乳兒に牛乳の補いとして使う場合は次の點を注意すること。
生後三ケ月まではなるべく用いない方がよい。三ケ月以後の乳兒に用いる場合でも全部を代用乳で使うことをせず一日の半量位を用いる。又この場合急激にかえずに、赤ちゃんの便の狀態や一般狀態に注意しながら一本づゝ增してゆく。

12、飲物並びに菓子

(イ) 代用コーヒー

大豆粉を弱火で香ばしく炒り、これに熱湯を注いで粒のないように溶き、二—三分火にかけ甘味を添えて飲む。好みに依つては粉を炒らずに水で溶いて弱火で二〇—三〇分間煮て甘味をつけるのもよい。

三〇—四〇分間煮るとなめらかになる。

(ロ) 餡

前と同樣に炒り火にかけ熱湯で煉り甘味をつけてこれをかしわ餅又はまんじゅうなどの餡に使う。

(ハ) ビスケット

大豆粉	三匁	(二六〇瓦)
小麥粉	七匁	(七〇〇瓦)
水	二・五匁	(四五瓦)
重曹	茶匙半杯	(一瓦)

鹽　茶匙半杯（一　瓦）
油　茶匙一杯（約三瓦）

大豆粉、小麥粉、重曹、鹽をよくまぜ合せ、これに油を加へて輕く混ぜ、更に水を加えて煉り、薄くのばして好みの形に切りフライパン又は天火で燒く。油は使はなくてもよいが、輕く出來上らない。

其の三　マイロ（米國產高粱）

マイロは米國產の高粱のことで、私共にははじめての經驗ですから、その食べ方は充分研究し、上手に調理しておいしく有效に食べませう、

マイロはなるべく粉にして配給することゝなつていますが、粒のまゝ配給された場合でもこれを粉にして使つた方が上策です。粉にする場合は砂や塵などをとり除くことが大切です。

成分は次の樣で、米と比較すると蛋白質の含量が幾分多くなつております。（一〇〇瓦中）

榮養素 / 食品名	水分	蛋白質	含水炭素	脂肪	纖維	灰分	タンニン	ビタミンB1	熱量
マイロ粉（全粒粉八〇%留）	八・六グラム 三・四	一三・五グラム 七・三	七〇・〇グラム 三・五	一・五グラム 一・〇	六・六グラム 三・三	一・六グラム 一・〇	四・三グラム 四・〇	三マイクログラム 六	三六八 三八

七分搗米	三·三	三·〇	二·一	一·二	〇·三	〇·九	一	〇·七

タンニンが約四パーセント含まれてをりますが、溶液をたとえしたとても大して害にたりません。そのまゝ飲用して結構です。

配給日量は米と同様で終戦は次のようになります。

食品名	一日配給量	一回食量	値段
米	三五五瓦	一一八瓦	八勺（一合 一四〇円）
マイロ粒	三五五瓦	一一八瓦	八勺（一合 一四〇円）
マイロ粉	三五五瓦	一一八瓦	一合二勺（一合 一〇〇円）

これを炊いて、朝夕足のたしにしたらよいでしょう。

このマイロ粉は栄養上の性質が小麦粉、玉蜀黍粉、大豆粉等とは違つてゐますから、以下その特性を生かした栄養料理法を幾つかあげてみましよう。

一、栄養料理

(イ) 飲み物

マイロ粉	一	合（一〇〇瓦）
紅茶	一	合（一八〇瓦）

湯に適を溶かし粉を入れてしばらくしたら充分煮りが出るまで煮る。煮をして約一五分間煮ます。

これをよく搗いて適當の形を作る。このまゝ食べてもよく又燒いてもよい。

(ロ) 蒸し餅

マイロ粉	一	合（一〇〇瓦）
熱湯	一	合（一八〇瓩）

熱湯と粉を混ぜ、小さくちぎり、中くぼみの形にして一五分間蒸す。これを熱いうちによく搗き、蒲鉾型にまとめる。

切つてこのまゝ食べてもよく、又燒いてもよい。

これに大豆粉を炒つた黄粉や、芋類、豆類、味噌等をつけて食べるのもよい。

2、お煎り

マイロ粉	一	合（一〇〇瓦）
熱湯	二	合（三六〇瓩）
醤油	少	〃

鍋に湯を沸かし、粉を入れてしやもじで充分粘りが出るまで煮る。これを溫いうちに醤油をつけながら食べる。

水は好みによつては粉と同量にしてもよい。又芋類や、野菜類などを茹で、そこに粉を煎り込んでも面白い。

3、パン

(イ) 水で溶く方法

重曹	茶匙半杯	(一　瓦)
水	一　合	(一八〇瓩)
マイロ粉	一　合	(一〇〇瓦)

材料全部をまぜ、鍋等に油を引いて流し込み、約二〇分間蒸す。フライパン等に流して焼いたのではうまくゆかない。

(ロ) 牛乳粉末化する方法

重曹	茶匙半杯	(一　瓦)
熱湯	一　合	(一八〇瓩)
マイロ粉	一　合	(一〇〇瓦)

鍋に湯を沸かし、マイロ粉の半量を入れてしゃもじでかきまぜながら弱火で煮て冷ます。煖りの粉に重曹をまぜ、冷めた煖りものに入れて適當の形に作り蒸すか焼く。或はこれを皮にして餡を詰め、まんじゅうのようにしてもよい。

(ハ) 小麥粉とまぜる方法

マイロ粉と同量の小麥粉をまぜれば、小麥粉同様の方法でパンが出来る。

4、**煖りすいとん**

水	四―五　勺	(七〇―九〇瓩)
小麥粉	三　勺	(三〇瓦)
マイロ粉	七　勺	(七〇瓦)

重曹　　紫能牛杯（1　瓦）

野菜鍋

材料全部をまぜ様状にまとめ、三糎位に切り、鍋湯で茹で、これに野菜鍋をかける。

5、マイロ粥

マイロ粒　　一　合（一四〇瓦）

水　　六　合（一一〇〇瓦）

鍋算に水洗いし、約二時間で炊上げる。一晩水につければ一時間半位で炊ける。

其の四　グリンピース

グリンピースの栄養成分の役割は、カロリー源ともなり、又現在日本で一番不足しているビタミン類ともなり非常にすぐれた食品です。

成分を次に示しておきましょう。（一〇〇瓦中）

栄養素＼食品名	水分	動蛋	植蛋	脂肪	炭水化物	リカルシウム	燐	鉄	ビタミンA	ビタミンB₁	ビタミンB₂	ビタミンC
	グラム	カロリー	グラム	グラム	グラム	ミリグラム	ミリグラム	ミリグラム	国際単位	ミリグラム	ミリグラム	ミリグラム
グリンピース	一〇・〇	一四四	一四・五	一・〇	二一・五	三五	一四六	一・六	一四〇	一四〇	一二〇	三
モヤシ（分類米）	一三・二	一四〇	七・二	一・三	三七・一	三六	三九	一	〇	三〇	六〇	〇

グリンピースは主食代替となつていても、一度に多量にとることは、大變もつたいないことですから、普通どこでも使つている御飯の炊込みや餡、汁粉等に使つて充分その效力を發揮したいと思います。

一般に粒のまゝ食べる場合は充分に浸水してから煮ますが、粉にしてパンやビスケット、餡、羊羹、スープ等に用いますと大變色の美しいものが出來ます。

1、豆　飯

御飯に二―三割程度入れるがよい。豆は少し硬めに煮たものを使い、或は一晩水に浸したものを普通の御飯を炊くときと同樣に炊上げる。

2、餡

豆を極く柔かに煮たものを水切りして摺りつぶす。これに鹽と甘味料を加えて餡に仕上げる。

3、豆　パン

煮た豆をそのまゝ或は摺り潰してパン生地にまぜて燒く。又は餡かペーストのように練つてこれをパンにつけて食べてもよい。

4、スープ

煮た豆を摺りつぶして煮汁を加え、適當の味付をしてポタージュにする。スープの臺に煮干のダシや骨スープ等が使えれば更によいものになる。

"Cooking of Imported Food"

Edited by
Welfare Ministry

Published by
Agriculture and Forestry Ministry

Contents:

(1) Corn-flour

(2) Fresh Powder of Soy-bean, freeing from fatty matters

(3) Millet

(4) Green-bean

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GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Public Health and Welfare Section

Press Conference
Preventive Medicine
Division
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REORGANIZATION OF HEALTH CENTER SYSTEM AFFECTS NUTRITION SERVICE

With the reorganization and modernization of Japan's health center system, the Nutrition Division has initiated a service to educate communities and individuals in sound nutrition principles, in an effort to keep the people healthy and strong, as well as to develop well-rounded nutrition programs, with special attention to certain vulnerable population groups, such as pregnant and nursing mothers, infants, school children and industrial workers.

A nutrition service in common with other health programs has been set up in all the model health centers in operation to date. Although efforts to organize an efficient service to deal with all these problems have been handicapped by lack of money, by the difficulty in coordinating activities of the many organizations, and by the great scarcity of specially trained nutritionists, actually, the outlook for future success is high. The type and number of nutrition services offered in the model health centers are so arranged as to take care of the many nutritional projects of the community which are essential to the health and well-being of its people.

Of the 230 nutritionists presently employed in health centers, 32 are working in the model centers thus far established. The five large cities, Tokyo, Nagoya, Osaka, Kyoto and Fukuoka, have two nutritionists employed in the model health center, while the other smaller areas have only one. Nutrition training courses for health center nutritionists and others, an important feature in the program, has been developed with the assistance of the Institute of Public Health. This will serve to augment dietetics personnel. The ever-increasing nutrition work load in the health centers has made this necessary, in order to insure that the nutrition projects will be successfully carried out.

At present, the health center nutritionist's schedule is a busy one, but is so arranged that her services will be absorbed where the need is greatest.

Monday through Saturday, she is available daily for individual nutritional instruction and consultation to patients visiting the

various clinics. However, the following projects essential for carrying out complete, community-wide nutritional education have been set up in accordance with the policy established for model health centers.

1. National Nutrition Surveys.

2. Nutrition assistance in the tuberculosis clinics.

3. Nutrition instructions and demonstration in maternal and child health clinics.

4. Nutrition services in conjunction with other health center services, for example, dental, welfare, nursing, etc.

5. Instruction and demonstration on proper utilization of imported foods or foods uncommon to the Japanese.

6. Community feeding (kitchen and restaurant).

7. Hospital and institutional feeding (nutritional accounting).

8. Nutrition service in conjunction with the school lunch program.

Nutrition services in your model health center were established to help you. They are one of the most reliable recent developments for the improvement of the health of the community through education on adequate nutritional requirements, and as a means of combatting one of Japan's most dangerous health enemies, malnutrition and tuberculosis.

Nutrition
(Subj File)

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Public Health and Welfare Section

(PHMJG 58)

APO 500
5 February 1948

MEMORANDUM TO: Ministry of Welfare, Japanese Government

SUBJECT: Revised Nutrition Surveys of the Civilian Population for 1948.

1. Reference is made to letter from Central Liaison Office, Tokyo, dated 22 January 1948, file CLO Number 405 (EWL) Subject: Nutrition Surveys of Civilian Population.

2. No objection is offered to the use of revised plan as submitted for Nutrition surveys of the Japanese Civilian population in 1948.

3. Reference is made to the original SCAPIN Number 422, A. G. 430.2 (11 December 1945) PH Subject: Nutrition Surveys of Civilian Population upon which all Nutrition Surveys have been conducted.

s/Crawford F. Sams
CRAWFORD F. SAMS
Colonel, Medical Corps
Chief.

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GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Public Health and Welfare Section

APO 500
5 February 1948

MEMORANDUM

SUBJECT: Information of General Application Pertaining to PHMJG 58, dated 5 February 1948, Subject, "Revised Nutrition Surveys of the Civilian Population for 1948," to Ministry of Welfare, Japanese Government.

1. With reference to subject memorandum the following is published for information of all concerned.

2. Subject memorandum refers to a revised nutrition survey plan submitted by the Ministry of Welfare dated 22 January 1948. Reference is also made to the original SCAPIN Number 422, AG 430.2 (11 December 1945) PH, Subject "Nutrition Surveys of Civilian Population", upon which all nutrition surveys have been conducted.

3. Essentive points of the plan are:

a. A reduction of the number of people observed by one-half.

b. Four surveys conducted annually in February, May, August and November.

c. Urban areas (12 cities) in addition to the nine large cities formally surveyed, Kyoto, Yokohama and Kobe are added.

d. Sampled areas from other cities over a 30,000 population will be surveyed.

e. Sampled areas from towns and villages.

f. Sampled numbers from Special Groups (Miners, Fishing Villages and Railway Workers).

g. In Physical Symptoms, "Mal-bone formation" will be omitted from the former 12 symptoms.

h. Height and Weight deviations will be continued in the May Survey.

i. Regarding methods of Survey - Consumption intake, number of days, method of recording, are the same as the original plan. Tables of composition will be the same.

j. The revised plan of Nutrition Surveys will be applied in the February 1948 Surveys.

4. PHMJG 58 has been prepared this date with re. to the above subject.

s/Crawford F. Sams
CRAWFORD F. SAMS
Colonel, Medical Corps
Chief

Nutrition

NUTRITION IN PUBLIC HEALTH

1. Since good nutrition is essential to health, nutrition is an integral part of a public health program. Nutritional problems must be anticipated and presented by careful planning and a constant review of the nutritional status of people and their food supply. The visible effects of under or mal nutrition take a long time to appear. The appearance of symptoms of nutritional deficiency in a community is evidence that particular foods or food in general have been short or that proper care has not been given to the provision of an adequate dietary. The only measure of inadequate dieteries prior to the appearance of symptoms, is a review of the total food eaten from day to day. It involves a study of food habits and the availability of food.

2. The medical phase of public nutrition is primarily diagnostic and advisory. Sound nutritional information forms the basis of decisions and advice. It is neither possible nor necessary to prescribe set food patterns since there are many ways to attain an adequate dietary, although some food patterns are less likely to lead to difficulties than others. Quantities of food consumed are as important as the kinds of food, especially in judging simple dietaries in which large quantities of particular foods are eaten. There are often possibilities of substituting one food for another which is of importance in dealing with the poor as compared to the rich who are not limited in resources.

3. The solution of nutritional problems is complex. Many factors confront the public health officer in arriving at sound answers. These include economic factors, agricultural production, distribution of foods, processing and food preparation, and psychological reactions. His tools are education as well as food. Eating is a fundamental part of man's existence. Unfortunately, he usually acquires not only fixed food habits, but strong opinions and emotions about food. Frequently he becomes an expert in his own mind. To tackle these complex problems the public health officer must establish relations with and work with many others, who have to do with food and anticipate problems as well as correct those that are recognized.

4. I have met two points of view with regard to the duties of public health officers with respect to nutrition.

a. Hold himself ready to render advice upon request.

b. Manifest an active interest in the nutritional status of a community and in people immediately concerned with food and nutrition and offer advice for correction of difficulties.

The second seems to be best because nutritional problems are not always evident and the need for action and often the solution comes to prepared minds from accidental evidence, conversation, or occasions.

5. The problems of the public health officer in Military Government differ somewhat from those of other public health officers. The latter works to improve the nutritional status of a community as a part of the prevention of disease as well as promoting general health. The Military Government Officer, on the other hand, is confronted with a community often forced to get alon with a restricted food supply. The level set by higher authority is one that will:

a. Prevent disease and unrest or,

b. Permit reconstruction and production at restricted levels of food intake. Such a level of nutrition is often outside the officer's previous experience. To make sound recommendations will require a careful analysis of the psychological as well as the nutritional phases of the problem

6. Nutrition and the Public Health Officer - Military Government

a. General Responsibilities.

(1) In view of the known relationship of nutrition to the maintenance of health and to disease of endemic and epidemic character, the nutrition of the civilian population is of particular concern to the M.G. Public Health Officers. Their responsibility in the control and prevention of epidemic diseases and in the preservation of health, directs their attention to nutritional deficiencies as an outstanding factor lowering the resistance of and predisposing a population to epidemics. Nutritional inadequacies, moreover, are likely to be of a character productive of civilian unrest and dissatisfaction prejudicial to the occupation.

(2) The Military Government Medical Officer acts in an advisory capacity to other M.G. officers charged with responsibility for the provision and distribution of food to civilians in general with particular attention to special groups such as, hospitals, institutions and the vulnerable categories, infants and young children, pregnant and lactating women, the old and sick. The problems concern production, procurement, distribution, and rationing of food, and indigenous food habits in relation to established nutritional allowances and rations.

(3) M.G. Public Health officers review the nutritional status of the civilian population and make suitable recommendations for corrections that may be justified to their commanders and periodic reports to higher headquarters as directed.

b. The nutritional status of a population and food available are assessed at various levels of reliability. The number of economic and psychological factors involved in borderline cases require factual evidence and careful sifting of reports and rumours with regard to hunger, disease, and food supply in relation to normal conditions existing in the country and community and to basic nutritional requirements for sound long-range recommendations. Means of assessing nutritional status and food intake include

(1) Casual observation of people on the street and foods available in gardens, fields, markets and stores.

(2) Analysis of food thefts. The frequency and location of food thefts may shed light on local conditions of nutrition.

(3) Checks on special groups. Special groups in a population, such as infants, children, pre-adolescents and pregnant and nursing women, reflect the results of inadequacy sooner than others. Certain groups of individuals in communities on rations do not have the same opportunity to obtain additional food as the general population. Among these are old people, patients in hospitals, and inmates of institutions. These groups are a good source of evidence of the effects of the minimum food supply. Such evidence must be discounted in relation to the over-all situation for they reflect the official attitude with regard to the food they can distribute while the community at large is able to obtain additional food. The condition of the patients and the types of nutritional inadequacies in hospitals are an index to specific nutritional problems of the community as a whole.

(4) Nutrition Surveys. A survey is the best means of assessing the nutritional status of a population. Nutrition surveys include the determination of the physical condition

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of the population and the quantities and kinds of food consumed. Evidence on nutritional status indicate the types of food that need emphasis and the degree of emergency that exists in cases of general under nutrition. The kinds and amounts of food consumed supply a basis for recommendation as to the kinds and amounts of food required. Such data are the practical type of information required for action by the military authorities or the civilian population.

c. Nutrition Surveys. Food Consumption Survey.

Food consumption may be determined by:

(1) Enquiring of individuals as to the kinds and amounts of food eaten during the last three meals and intermediate periods. This yields fairly good preliminary results when conducted by trained individuals with a flair for obtaining information by questioning.

(2) Having housewives keep records of the kinds and amounts of food used during a given number of days.

(3) Placing observers in a home who weigh and record the kinds and amounts of food used by the family or individuals in the family.

(4) (Institutions and hospitals) Require that records be kept of the quantities of all food used, and the number of persons actually eating the food.

(5) Nutritional evaluation of the result of food consumption studies must be made with tables of food composition used by all echelons concerned with the results or a specific statement made as to the tables used.

d. Nutrition Surveys. Physical examinations: The methods used in physical examinations may be simple or complex, but in general, the simpler procedures are preferable. Symptoms and physical findings are rarely specific and diagnostic by themselves, and should be supplemented where feasible, by laboratory methods. A few well established symptoms and findings, however, are reliable and diagnostic, such as night blindness; typical skeletal changes from Vitamin A and D deficiencies, respectively; modifications of the skin and membranes of the mouth; changes in nerve reaction and bradycardia are indicative of the Vitamin B complex deficiencies. Body weight in relation to standard height and weight for a given population is indicative of the extent of general under nutrition. Comparison of the incidence of symptoms from one survey to another and in relation to the usual rates together with consideration of the death rates, and incidence of infectious disease in the community are important in reaching a sound conclusion.

e. <u>Prevention of Dietary Deficiency</u>: Prevention consists of the maintenance of normal nutritional health in average individuals by means of a natural diet, the components of which should be varied in order to insure qualitative adequacy. M.G. Public Health Officers, in plans for feeding, will consider the availability and cost of foods and the dietary customs and habits of the people who are to consume them. Conclusions that dietary habits and customs exert an unfavorable influence on nutritional status should be made only after careful observation and consideration, since it has been shown that natural selection often results in adequate dietaries. Acceptable and adequate substitute foodstuffs should be available before questionable native food practices are discontinued, since as a rule food habits are deeply ingrained in the people. Not uncommonly, the deficiencies resulting from habit and custom are related to modern developments of processing and preservation. Thus the use of highly milled and polished rice has been productive of a high incidence of beri-beri in certain areas of the Orient, and in Japan has led to legislation regulating the milling of rice in order to preserve the anti beri-beri factorsiin the grain.

f. Protection against Dietary Deficiency: Protection against nutritional inadequacy applies to particular groups of individuals who are especially susceptible to nutritional deficiency disease. It includes infants and young children, adolescents, pregnant women, and nursing mothers, the aged, certain groups of workers exposed to occupational hazards, and persons with diseases predisposing to nutritional deficiency. Circumstances may require the addition of special food supplements or chemical preparations to the dietaries of such groups. In general, natural foods and natural concentrates are to be preferred to chemical preparations.

g. Relief of Dietary Deficiency: The relief or treatment of nutritional deficiencies belongs to the realm of clinical medicine in all but the milder deficiency states which are amenable to simple dietary measures. These mild deficiencies should be relieved through an adequate natural diet. Severe dificiencies are specific medical problems to be treated medically as indicated, often with pure vitamins or chemical products. The basic principle of returning to a natural diet as soon as possible, however, applies even in florid cases, since such a diet prevents the recurrence of the deficiency and the appearance of other nutritional disorders.

7. Nutrition Surveys in Japan.

a. Nutrition surveys were requested of the Imperial Japanese Government by a directive from the Supreme Commander for the Allied Powers, (SCAPIN 422), 11 December, 1945, subject: "Nutritional Surveys of Civilian Population". This directive has been supplemented by a Memorandum, dated 14 October 1946, subject: "Information of General Application Pertaining to Directive Number (SCAPIN-422), 11 December, 1945, subject: "Nutritional Surveys of Civilian Population", which provides that Military Government offices, preferably the Medical Officer, review the conduct of surveys, especially with regard to the uniformity of the physical examinations, including at least a rough check of the scales used to weigh the people.

b. The results of these surveys have been invaluable. They form the basis for recommendations with regard to the need for and amount of imported food.

c. Plan for Surveys. The Japanese Imperial Government submitted a plan for the surveys, letter dated 14 January 1946, subject: "Nutrition Surveys of Civilian Population", which provided for surveys to be conducted in February, May, August and November 1946 and February 1947. The original plan included the cities of Tokyo, Nagoya, Osaka, Kure, and Fukuoka, and the prefectures of Tokyo, Chiba, Kanagawa, Gumma, Saitama, Ibaraki, Tochigi, Aichi Shizuoka, Osaka, Kyoto, Hyogo, Wakayama, Shiga, Hiroshima, Okayama, Fukuoka, Saga and Kumamoto. Later, the cities of Sapporo, Sendai, Kanazawa, Matsuyama and the prefectures of Hokkaido, Iwate, Miyagi, Toyama, Ishikawa, Fukui, Ehime and Kochi were added.

d. Number of subjects.

(1) Physical condition of the population to be determined on representative samples of the population as follows:

Cities 1,000,000 over 1%

500,000 to 1,000,000 1.5%

100,000 to 500,000 2.0%

Prefectures - A number equal to the number in the adjacent cities.

(2) Dietary Consumption Studies - One half the number examined physically.

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(3) The subjects to be selected in such a way as to be representative of the whole population and related to the last census. The main criteria to be used in selection of the sample to be age, sex, occupation and economic status. The areas to be spread geographically over the whole region or ku.

d. Physical Examinations. The following instructions have been issued by the Ministry of Health and Welfare with regard to physical examinations:

(1) The report on Physical examinations includes, locality, name, age, sex, occupation, type of work, height, weight, deviation greater than plus or minus equals 10% of the standard weight for a given height and sex.

(a) Anemia

(b) Cheilosis

(c) Glossitis and stomatitis

(d) Absence of knee jerk

(e) Edema

(f) Hypertension

(g) Chronic diarrhoea

(h) Menstrual irregularities in women 17-45

(i) Bradycardia (60 or below)

(j) Poor lactation (up to six months)

(j) Keratomalacia or Xeropthalmia

(k) Under Development of Bones (babies under one year)

The above appear on slip used to record data.

(2) The directions with regard to physical symptoms accompanying the chart are as follows:

(a) Anemia - Conjunctiva, color of face, mucous membrane, nails and hands.

(b) Cheilosis - Appearance like scratches at the corner of the month. Determine whether it is infiltration or has eczematous crustosum.

(c) Glossitis and stomatitis - acute or chronic. Sometimes it causes the atrophy of the tip of the tongue. Stomatitis follows glossitis and causes the reddening of the mocous membrane or white spots inside the mouth.

(d) Tendon - reflex - Determine the "knee jerk presence or absence of reflex.

(e) Edema - Usually appears on limbs. When pressed and it causes a hollow ↓ should be marked.

(f) Hyperkeratosis - The skin gets dry and coarse, and keratosis appears at the pores.

(g) Chronic diarrhoea - Positive when it continues for over a week or occurs frequently.

(h) Menstrual irregularities - Positive illness should be determined from those who did not menstruate the past three months who were between the ages 17 and 45. However, pregnant and lactating women should be treated differently and noted as such.

(i) Bradycardia. Those with a pulse rate below 60 per minute. Pulse beat should be recorded. For accuracy, the patient should not be examined immediately after strenuous exertion.

(j) Decrease of lactation. Mothers who are capable of breast feeding their babies from date of birth and the following six months are (negative). Those whose infants require artificial feeding are (positive). (Lactation period limited to one year).

(k) Keratomalacia or Xeropthalmia. Positive to those having symptoms.

(l) Under development of bones. Babies, especially their skulls, the curving of their limbs and signs of rachitic development of bones shall be noted as positive. (Babies are referred to as below one year old. Children, under six years.)

(3) The surveys are conducted under the general supervision of the Ministry of Health and Welfare of the Japanese Imperial Government. The immediate responsibility lies with the Chief of the Sanitary Bureau of the city or prefecture. The results of surveys are transmitted to the Ministry upon completion. At present, none of this tabulation is being required at the city and prefectural level.

(4) Results of surveys have been published in the "Summation of Non-Military Activities in Japan", April, June, July and August and from time to time in the Weekly Bulletin, Public Health and Welfare Section, SCAP.

8. Comments on Physical Examinations. Past observation indicates the following difficulties in the conduct of examinations:

a. Body weight - Occasionally scales have been inaccurate. The local Bureau has been instructed to check the scales. The quantity of clothing permitted in taking body weights has varied. Outdoor clothing has always been required to be removed. It is desirable to reduce the normal clothing to slips and trousers. In some cases, screens have been provided and the subjects weighed in shorts and underwear. When clothes are included in the weight, a standard weight is subtracted. It is well to enquire as to the method adjustment of weight of clothing and to check its adequacy.

b. Height - Suitable measuring devices are usually available. Occasionally a tape measure is used.

c. Tendon reflexes - loss of knee jerk. Observations are often made through the clothes which is not desirable. Some physicians use the hand, others the percussion hammer. The procedure is often conducted without determining the position of the patellar tendon and the percussion is "hit or miss".

d. Hyperkeratosis. Examinations for hyperkeratosis are often perfunctory and confined to the upper shoulder and back of the neck. In doubtful cases it is desirable to observe the back of the upper arms and legs.

9. Comments on Food Consumption Surveys.

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a. Information on food consumption is obtained by requiring the housewife to record the kinds and amounts of food used in the household each day for three days. A nutritionist takes the forms to each of the houses assigned to her on the day previous to the first day of record. The morning of the second day of record, she goes to the house and checks the entires of the previous day. Samples of quantities of food used are sometimes kept by the housewife for varification the weighing by the nutritionist when there are no scales. Standard weights of original and cooked food for given volumes have been worked out and are used by the nutritionist. Daily visits are made to each house and the final sheet is collected on the day following the last day of recording. The results are assembled at the Sanitary Bureau of the city or prefecture.

b. Data on the quantities of food used per capita in hospitals are being assembled each month in hospitals in Tokyo and will be extended to other hospitals, especially mental and tuberculosis hospitals, in other parts of Japan. It is probable that similar data will be required in penal and correctional institutions and homes for children and aged, as part of the accounting of the institution. This has been called "Nutritional Accounting". It permits a rough evaluation of the adequacy of the food purchased and produced and fed to the people living in the institution or home as evidence of the effectiveness of the administrative control of institutions in relation to the people for which it is responsible. Such reports combined with a basis of rationing is an excellent bases for purchase for food, and production when there is a farm attached to the institutions.

c. To facilitate review of the nutritive value of the food supplied, foods of similar kind and nutritive value or which are valuable for particular nutrients or are unique are classed together and the consumption per capita calculated for the group. This reduces the number of items and permits a ready nutritional review once the food pattern of the institution is known and evaluated.

10. Rations for Hospitals and Institutions.

Special allowances for patients fed in hospitals and in institutions have been recommended because of the difficulties such people have in obtaining additional food to supplement the inadequate ration. The recommendation includes provision for nutritional accounting by institution receiving the extra foods.

11. School Lunches. A proposal is under discussion for the establishment of school lunches throughout Japan. The ideal school lunch not only provides food for the children, but includes foods that will correct the deficiencies of the food pattern of that particular region or city. The Military Government Medical Officers should take an interest in the program when started and report their opinion of the effectiveness of the program.

12. Monthly or Bimonthly Reports.

a. The Public Health Officer supplies information for the monthly or bimonthly report from the Military Government Team to which he is attached. Information with regard to the nutritional status of the civilian population for which the team is responsible is part of a report on health.

b. A report on nutritional status will include or evaluate reports of other Military Government officers of this same learning relating to foods. The fields to be reviewed and covered when applicable are as follows:

(1) The food resources available, separated into indigenous and imported food. Such a report is required of the officer concerned with food by the Economic and Scientific Section, SCAP. This report relates to the quantities of staple foods rationed and supplied at ration points and estimates of additional food purchased in the markets or

obtained by home production or gift and of caloric content. Examination of these reports in relation to nutrition surveys indicates that they are fairly good in some cities and not very reliable in others, even for rationed food because they have stated the ration allowance when the quantity was not issued. Such reports and analysis cover the following

(2) Official ration scale for individuals in various categories.

(3) Quantities of rationed food actually available to individuals in various categories, including those in excess of the authorized allowance.

(4) Extent to which food actually obtained was purchased or received in whole or part as a free issue. This will include food served in soup or central kitchens, canteens, etc. of Red Cross, Welfare Agencies, mines, manufacturers, etc. For relief clients, special worker groups, or the population as a whole. In the case of soup or cooked meals, statements of quantities of constituents served per capita and frequency of serving should be given: agencies providing food in kind or free should be listed, and size and description of the population groups recorded.

(5) The vitamin concentrates or preparations and mineral salts issued by private or state agencies and the categories of individuals to whom available and basis of issue.

(6) Evidence with regard to state of health of the population as indicated by:

(a) Trend of changes in body weight and data when available

(b) Signs and symptoms of nutritional deficiencies in relation to categories of individuals.

(7) ~~(c)~~ A statement of conclusion as to adequacy or inadequacy of the food available and consumed and the general nutritional status of the population.

(Comment: When the nutritional status of the population has been evaluated and reported, subsequent reports should indicate the changes that have occurred and factual data as obtained.