
Robert E. Shank Papers

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Natl. Dairy Council

REID H. RAY FILM INDUSTRIES, INC.

INDUSTRIAL MOTION PICTURES
SLIDE FILMS
TELEVISION COMMERCIALS

an
original
presentation
in
visual
communication

FOOD FOR THOUGHT

Revised Shooting Script
For A Color Sound Motion Picture
Prepared Especially For

NATIONAL DAIRY COUNCIL

111 North Canal Street
Chicago, Illinois

By

Reid H. Ray Film Industries Inc.

Stanford Sobel

July 28, 1964

SCENE 1.

THE DARKNESS OF A MOON-LIT NIGHT BLURS A BARELY VISIBLE RIDGE AMID THE HILLS IN THE BACKGROUND.

(FADE IN BG MUSIC THAT CAPTURES THE SOMBER ATONALITY OF THE NIGHT.)

SCENE 2.

TIME-IAPSE PHOTOGRAPHY REVEALS THE FIRST INTIMATIONS OF DAWN BREAKING OVER THE RIDGE OF MOUNTAINS.

(PACE OF THE MUSIC PICKS UP WITH A BRIGHT, SUNSHINE TEMPO.)

SCENE 3.

THE SUN HAS RISEN NOW, AND THE CAMERA PANS OVER THE MOUNTAIN RIDGE, THEN SLOWLY DOWN TO A FARM IN THE VALLEY. THE HIGH CAMERA ANGEL REVEALS A RICH PATCHWORK OF GREEN, YELLOW, GOLD, BROWN, AND BLACK FIELDS OF CORN, ALFALFA, HAY, CABBAGE, LETTUCE, AND SUCH. THEY SURROUND THE NEAT, ORDERLY ARRANGEMENT OF A WELL-KEPT, PROSPEROUS FARM. THIS MIGHT ACTUALLY BE IN A SERIES OF CROSS DISSOLVES IF A SINGLE LOCATION IS UNOBTAINABLE.

SCENE 4.

THE CAMERA ZOOMS IN ON ONE OF THE FIELDS.

NARRATOR:

These are the colors of nature...

CUT TO:

SCENE 5.

ECU. THREE OR FOUR EARS OF CORN AS SEEN ON THEIR STALKS.

CUT TO:

SCENE 6.

ECU. RIPE TOMATOES AS SEEN ON THE VINE JUST BEFORE PICKING.

CUT TO:

SCENE 7.

ECU. CONCORD GRAPES, RIPE ON THE VINE JUST BEFORE PICKING.

CUT TO:

SCENE 8.

ECU. A PATTERN SHOT OF CABBAGE OR HEADS OF LETTUCE STACKED FOR SHIPMENT. THEY GLISTEN FROM THE DEW.

CUT TO:

SCENE 9.

ECU. ORANGES STACKED IN A SIMILAR MANNER.

CUT TO:

SCENE 10.

ECU. GRAPEFRUIT COLLECTED IN OPENED SHIPPING CONTAINER.

CUT TO:

SCENE 11.

ECU. PURE WHITE CAULIFLOWER IN A BUSHEL BASKET.

CUT TO:

SCENE 12.

ECU. GRAY OR BEIGE MILLED GRAIN, IN PROCESSING PRIOR TO PACKAGING.

CUT TO:

SCENE 13.

ECU. A LOAF OF BREAD. SEVERAL SLICES HAVE BEEN CUT FROM IT AND ARE PLACED TO ONE SIDE. A KNIFE CUTS THROUGH THE BREAD.

NARRATOR:

...The colors, indeed, of life itself.

CUT TO:

SCENE 14.

ECU. MILK COLLECTS IN A PAIL AS A COW IS MILKED. THE CAMERA BACKS AWAY TO REVEAL A CALF AT HER SIDE.

CUT TO:

SCENE 15.

A HERD OF CATTLE.

CUT TO:

CUT TO:

SCENE 16.

BLACK ANGUS STEERS GRAZE IN A PASTURE.

CUT TO:

SCENE 17.

STEERS CLIMB A RAMP AND ENTER A RAILROAD CATTLE CAR.

Everywhere we find the dramatic evidence of nature's color-coded secrets...

CUT TO:

SCENE 18.

STEAK ON A CHARCOAL GRILL. A FORK PICKS UP THE STEAK.

...By which life maintains and perpetuates itself.

CUT TO:

SCENE 19.

A KNIFE CUTS INTO A ROAST AND PEELS OFF SUCCULENT PIECES OF RARE BEEF.

NARRATOR:

The color of food is part of nature's
mysterious, self-replenishing cycle
that serves the ultimate purpose:
The uninterrupted continuity of life.

CUT TO:

SCENE 20.

A SMALL BOY, SEATED AT THE FAMILY'S OUTDOOR PICNIC TABLE, TAKES UP A PIECE OF CHICKEN. HE ENJOYS HIS FOOD.

Every day nature provides an abundance
of food...

CUT TO:

SCENE 21.

THE BOY'S YOUNGER SISTER TAKES UP AN EAR OF CORN. GRINNING, SHE STARTS MUNCHING ON IT.

...And every day, food provides man with
the nutrients necessary for health and
well being.

(BG MUSIC UP TO COVER TITLES.)

SUPER TITLE OVER:

SCENE 22.

MAIN TITLE: LETTERING. (on background of wood of picnic table

FOOD FOR THOUGHT

SCENE 23.

PRESENTS TITLE.

SCENE 24.

CREDIT TITLES.

DISSOLVE TO:

SCENE 25.

BIACKNESS. GRADUALLY, WHITE SMOKE INTRUDES ON THE SCENE. COLORED LIGHTS--FIRST WHITE, THEN RED, GREEN, BLUE--PIAY ON THE SMOKE. EACH COLOR IS EMPHASIZED THROUGH A SERIES OF QUICK DISSOLVES TO DUPLICATE THOSE OF THE OPENING SEQUENCE: YELLOW, GOLD, RED, BLUE, GREEN, ORANGE. THE ORDER OF THE COLORS IS FROM HOT TO COOL.

NARRATOR:

During all the millions of centuries that followed its violent birth, the solar system hurtled through space. And the earth gradually cooled.

DISSOLVE TO:

SCENE 26.

SOMBER HUES AND VAGUE OUTLINES IDENTIFY A RUGGED, BARREN TERRAIN. IN THE BACKGROUND, FAINT STARS BLINK ON IN THE PERIPHERAL BIACK AND OUTLINE THE TOPOGRAPHY OF A SECTION OF THE EARTH BEFORE LIFE BEGAN. THIS IS A DIORAMA IN MINATURE.

SCENE 27.

THE SCENE GROWS BRIGHTER AS A SERIES OF QUICK DISSOLVES GIVES THE IMPRESSION OF A RETURNING SPACE VEHICLE. THE EARTH'S TERRAIN IS SEEN IN GREATER DETAIL; A BODY OF WATER APPEARS AS WE MOVE IN TIGHTER. AT THE WATER'S EDGE, A TINY LIGHT APPEARS. IT SPARKLES LIKE A DIAMOND.

At last, the circumstances that stimulate life on earth were just exactly right. From inorganic matter sprung the first seeds of life itself.

DISSOLVE TO:

SCENE 28.

VIEW OF THE EARTH IS ENCLOUDED IN SMOKE UPON WHICH COLORED LIGHTS PIAY AS IN SCENE 25. SMALL WHITE LIGHTS SHINE ON AND DISAPPEAR THROUGH THE CLOUDS.

NARRATOR:

More and more organic matter came into being--only to perish again. this constant cycle of creation and destruction continued for thousands and thousands of centuries.

DISSOLVE TO:

SCENE 29.

THE CLOUDS OF SMOKE SEPARATE AS PATCHWORK BLOCKS OF COLOR BIAZE FROM THE EARTH.

Finally, life took hold because it found the food essential to sustain and perpetuate itself. Life is here to stay.

SCENE 30.

LIGHTS ALONG THE COAST OF THE WATER FADE IN AND OUT IN RAPID SUCCESSION. BUT MORE AND MORE OF THEM PERSIST AND GLOW CONSTANTLY. THE CAMERA DOLLIES IN ON ONE OF THEM. THE LIGHT SLOWLY ENVELOPES THE SCREEN. THE EFFECT IS THAT OF A MANY-FACETED DIAMOND.

(SOUNDTRACK: THE ETHEREAL TONES OF MUSIC BECOME A SIMPLE MELODY AS THE MUSIC BUILDS FROM THIS POINT UNTIL THE START OF MAN'S STRUGGLE FOR SURVIVAL IN A HOSTILE WORLD.)

CUT TO:

SCENE 31.

PHOTOMICROPRAPHY SEQUENCE FOLLOWS THE MOVEMENTS OF THE MOST BASIC PIANT ANIMAL, A FLAGELIATE.

DISSOLVE TO:

SCENE 32.

ARTWORK OR PHOTOMICROGRAPHY. THIS DESCRIPTION IS SUBJECT TO CHANGE. MORE COMPLEX MARINE LIFE. A LICHEN AFFIXES ITSELF TO A ROCK AND FINALLY A SMALL FISH-LIKE VERTEBRATE, SUCH AS A TADPOLE, APPEARS. HE CRAWLS OUT OF THE WATER AND SLITHERS INTO THE MUD OF THE SHORE.

NARRATOR:

As ages pass to ages, the conditions of life constantly change, imperceptibly but inevitably The first living beings accommodated to the existing food supply in the continuing struggle for survival.

CUT TO:

SCENE 33.

STILL LIFE DRAWINGS IN RAPID SEQUENCE OR LIMITED ANIMATION OF A DINOSAUR: A BRONTOSAURUS.

Many prehistoric animals failed to cope with changing conditions, and...

SCENE 34.

STILL LIFE DRAWINGS IN RAPID SEQUENCE OR ANIMATION OF MAMMOTHS.

...Unable to find food, they perished.

CUT TO:

SCENE 35.

A PACK OF WILD HORSES RACE ACROSS THE WESTERN PLAINS; OR A PACK OF WOLVES ARE SEEN IN THEIR NATURAL HABITAT. THEN A COCKROACH. dragon fly

Other species were so adaptable that for hundreds of thousands of years, they have scarcely changed at all. Then, as now... food controlled life.

CUT TO:

SCENE 36.

RAPID SEQUENCE STILLS OF FOSSILS OR PRIMITIVE DRAWINGS BY CAVEMEN OF PREHISTORIC ANIMALS.

NARRATOR:

The secret of survival is clear...

Either adapt to change, or perish from

the face of the earth.

DISSOLVE TO:

SCENE 37.

A DIORAMA OF A PRIMEVAL FOREST FROM THE EARLY PLEISTOCENE PERIOD. PLANT AND ANIMAL LIFE OF THE PERIOD ARE REPRESENTED INCLUDING THREE OR FOUR PREHISTORIC MEN GROUPED IN A BRASSY OPEN SPACE ON THE GROUND.

The most venturesome prehistoric creature

is man.

SCENE 38.

A DIORAMA DEPICTS A GROUP OF CAVEMEN SHOWN ON THE HUNT FOR FOOD.

He leaves the comparative safety of the

trees to forage on the ground where

food is more plentiful.

SCENE 39.

DIORAMA DEPICTS A GROUP OF CAVEMEN FASHIONING TOOLS AND HUNTING WEAPONS.

He learns to walk erect, to fashion crude

tools for protection and for hunting.

SCENE 40.

DIORAMA DEPICTS CAVEMEN EATING.

NARRATOR:

He eats what food he can find and, interestingly, he eats a well-balanced diet. But he must forage when food is plentiful...and starve when it is scarce.

CUT TO:

SCENE 41.

LIMITED ANIMATION. A GROUP OF EARLY FARMERS HARVEST GRAIN IN THE BACKGROUND WHILE WOMEN MILL IT IN THE FOREGROUND.

This tenuous balance of feast and famine continues for millions of years, until man learns to control food instead of hunting for it.

SCENE 42.

LIMITED ANIMATION CLOSE-UP OF EARLY WOMEN MILLING GRAIN, DOING OTHER ELEMENTARY AGRICULTURAL TASKS.

He gathers and plants wild seeds and tames wild animals.

Modern civilization--and commerce--are born ...based upon the systematic production of food...the activity which we call agriculture.

SEQUENCE 43.

LIMITED ANIMATION OF FARMERS WORKING IN THE FIELD. THROUGH A SERIES OF RAPID DISSOLVES, THE GRADUAL IMPROVEMENT OF FARMING METHODS IS DEPICTED; MECHANIZATION GRADUALLY INCREASES PRODUCTIVITY WHILE THE NUMBER OF PEOPLE WORKING IN THE FIELDS SLOWLY DECLINES.

(SOUNDTRACK: THE ORIGINAL SCORE IS BASED ON EARLY 19TH CENTURY FOLK TUNES, SUCH AS SHENANDOAH, JOHNSON'S OLD GREY MARE, ETC.)

DISSOLVE TO:

SEQUENCE 44.

A COMBINATION OF 19TH CENTURY FARMING SCENES AND PHOTOGRAPHS OF FARM IMPLEMENTS BEGINS A DRAMATIC PICTURE RHYTHM SEQUENCE THAT CONVEYS THE FEELING OF THE DRUDGERY OF LIFE IN THE COUNTRY DURING THE FIRST HALF OF THE 19TH CENTURY.

NARRATOR:

Almost overnight, the industrial revolution in the Western World sweeps aside acnient farming methosd.

(THE MUSIC SEQUES BRIEFLY TO SOME CIVIL WAR TUNES AND THEN INTO MELODIES OF WAGON TRAINS, RAILROADING, AND THE COWBOY.)

DISSOLVE TO:

SEQUENCE 45.

PICTURE RHYTHM USING STILL PHOTOGRAPHS AND PAINTINGS DEPICTS THE HAND-RAKE REPLACING THE HORSE-DRAWN HAYRACK; THE HAND-SICKLE DISSOLVES INTO THE McCORMICK REAPER, ETC. THE FAMILY CHORES OF MILKING, MILK SEPARATING, CHURNING, AND SLAUGHTERING GIVE WAY TO THE EARLY COMMUNITY DAIRY, FLOUR MILL, SUGAR REFINERY, AND MEAT-PACKING HOUSE.

The productivity of the American farmer leaps... two! ... five! ... thirty times!

DISSOLVE TO:

SEQUENCE 46.

FINISHED ART, OR STILL PHOTOGRAPHS IN RAPID SEQUENCE: HOME CANNING METHODS: A CRACKER BARREL, PICKLES, CANNED FOODS, SAUERKRAUT, AND OTHER ITEMS THAT MIGHT BE FOUND IN A 19TH CENTURY PANTRY.

DISSOLVE TO:

SCENE 47.

ON AN ANIMATION STAND, THE CAMERA CAPTURES THE EXCITEMENT OF EDITORIAL FOOD PAGES FROM WOMEN'S SERVICE MAGAZINE AND DEMONSTRATES THE EVOLUTION OF PRESERVATION METHODS AT THE TURN OF THE CENTURY.

Industrial technology not only revolutionizes the farm, it also changes our ways of preserving and preparing food.

CUT TO:

SCENE 48.

AN UNATTENDED MODERN MILKING MACHINE IS SUPERIMPOSED OVER STILL PHOTOGRAPH OF MILKING METHOD 50 YEARS AGO.

SCENE 49.

THE LATEST MODEL SELF - PROPELLED McCORMICK REAPER IS SUPERIMPOSED OVER STILL PHOTOGRAPH OF SEVERAL WORKERS BUNDLING HAY IN THE FIELDS.

SCENE 50.

PRODUCTION LINE MANUFACTURING AND PACKAGING MACHINERY PRODUCING BUTTER IS SUPERIMPOSED OVER STILL PHOTOGRAPH OF WOMAN CHURNING BUTTER.

DISSOLVE TO:

SEQUENCE 51.

SPREADS OF WOMEN'S SERVICE MAGAZINE PAGES FROM THE 20'S THROUGH THE 30'S, 40'S, TO THE PRESENT.

SCNEE 52.

AGAINST A FERRO-TYPE BACKGROUND OF A TURN-OF-the-CENTURY WOMAN, WHO IS PEELING POTATOES, A MODERN HOUSEWIFE POURS A PACKAGE OF INSTANT POTATOES FROM A BOX INTO A MIXING BOWL.

NARRATOR:

In this land of plenty, fewer people produce more food for more people than ever before. Today, the American farmer feeds himself and thirty other persons.

SCENE 53.

INDIAN FARMER PLOWS HIS FIELD WITH DRAFT ANIMAL. THE FIELD IS FULL OF WATER, AND THE FARMER IS POORLY DRESSED.

NARRATOR:

But in most of the world, people still struggle to feed themselves...or ~~possibly~~ and their families ~~as well.~~

SCENE 54.

GREEK FARMER HOES ROCKY SOIL.

Although man has made impressive progress against starvation, the figures are still very discouraging.

SCENE 55.

STREET SCENE IN ASIA. FAMILY EATING POOR MEAL.

Two-thirds of the world's population still suffers from malnutrition...

SCENE 56.

STARVING CHILDREN IN UNDERDEVELOPED AREA. ESTABLISH HOSPITAL WARD B.G.

...And one-half the children born in the world today do not live past the age of five, due to malnutrition and such related effects as protein and calorie deficiency. We do understand the causes of these diseases... — ask UNICEF

DISSOLVE TO:

SCENE 57.

IAB SCIENTIST MOVING BINOCULAR MICROSCOPE TOWARD HIM, ADJUSTING FOCUS AND STAGE.

Because of the advances made in the science of nutrition during the last fifty years. Starting with the single cell itself....

SCENE 58.

PHOTOMICROGRAPHY. SINGLE CELL ANIMAL ABSORBING FOOD, RESPONDING TO ENVIRONMENTAL CHANGES, MOVING ABOUT, ETC.

NARRATOR:

...Nutritionists have been able to establish such basic knowledge as the mechanisms of food absorption, the response to environmental stimuli, the influence of chemical and physical factors, and the relationship between genetics and metabolism. What we have learned from our work on the single cell....

SCENE 59.

GROUP OF LABORATORY ANIMALS EATING IN CAGES.

...Has been further investigated by nutritional evaluations on laboratory animals...

SCENE 60.

GROUP OF ADULT PATIENTS BEING FED ON FOOD TRAYS IN HOSPITAL. THEY'RE NOT SICK PEOPLE.

...And finally authenticated in clinical studies on a massive scale. The study of nutrition has involved scientists of many interdependent disciplines...the biochemist, the physicist, the geneticist, the family physician, the dietitian, and many, many others, the entire spectrum of modern science, in fact.

DISSOLVE TO:

SEQUENCE 61.

LIMITED ANIMATION.
START WITH SINGLE CELL, SCRATCH-OFF TO POINT IN TIME WHERE LIFE BEGINS, ON TO 1964. THEN REVERSE AS INDICATED.

NARRATOR:

So, during the last fifty years, men have finally begun to understand the factors that influence nutrition in the single cell. Now for the first time in human history, the science of nutrition has given us the information we need to feed ourselves properly. As with any information however...

CUT TO:

SCENE 62.

CANDID PHOTOGRAPHY AT A WELL-APPOINTED EMPLOYEE CAFETERIA. AFTER AN ESTABLISHING SHOT, THE HAND HELD CAMERA FOLLOWS ONE GIRL DOWN THE LINE AND ZEROES IN ON HER CHOICES FOR LUNCH. FIRST, SHE PICKS UP A SALAD, THEN PUTS IT BACK. INSTEAD, SHE SELECTS A CELLOPHANE PACKAGE OF CRACKERS. SHE ALSO PICKS OUT A GLASS OF ICED TEA OR A CUP OF COFFEE. THE FIRST PERSON CAMERA FOLLOWS HER ALONG THE CAFETERIA LINE AND PAUSES NOW AND THEN AS SHE BRIEFLY CONSIDERS ALOUD WHETHER TO CHOOSE THIS DISH OR THAT. MEANWHILE, THE NARRATIVE DETAILS WHY SHE DOESN'T CHOOSE THIS OR THAT ITEM. THE FIRST GROUP IS FRUIT JUICES.

NARRATOR:

...Knowing what is right, does not mean that we will do what is right!

SECRETARY: (Whispered voice of her conscience)

Let's see, now, I had juice and coffee for breakfast.

No juice.

SCENE 63.

SALADS. CAMERA ZEROS IN ON VARIOUS DISHES. SECRETARY HESITATES OVER SEVERAL OF THEM AND FINALLY MOVES ON.

SECRETARY:

Salad? I'm tired of salad.

SCENE 64.

IN RHYTHMIC MOTION , CAMERA PANS OVER MEAT DISHES: SPAGHETTI: HAMBURGER PATTIES WITH RICE AND ONIONS.

No...None of that stuff.

SCENE 65.

IN RHYTHMIC MOTION, CAMERA PANS OVER THE VEGETABLES.

SECRETARY:

Can't stand vegetables. Ugh!

SCENE 66.

CAMERA LINGERS INVITINGLY OVER THE DESSERT SECTION. SHE TAKES A PIECE OF PIE.

No resistance. Oh, well.

SCENE 67.

CAMERA FALLS TO THE COFFEE AND TEA URNS. SECRETARY PICKS UP A GLASS OF TEA.

Iced tea. It's hot today.

SCENE 68.

SECRETARY CARRIES HER TRAY TO TABLE AND SITS DOWN AT TABLE.

NARRATOR: (O.S.)

But a glass of iced tea and a piece of pie are

a totally inadequate lunch for anyone...

SCENE 69.

SECRETARY SEATED IN FRONT OF HER TRAY MATCH DISSOLVES TO SAME GIRL SEATED AT HER TYPEWRITER.

...Even a young woman leading a very sedentary

life doing work which requires relatively little

physical effort.

SCENE 70.

THE SECRETARY STANDS UP, TAKES A DICTATION PAD, AND GOES INTO HER BOSS' OFFICE. HE IS AN OLDER MAN. HE IS IN CONFERENCE WITH A GROUP OF ABOUT SIX INDIVIDUALS. THE SECRETARY SITS DOWN TO TAKE NOTES ON THE MEETING, AND THE CAMERA TRAVELS AROUND THE TABLE, GETTING SHOTS OF THE DIFFERENT PEOPLE IN THE CONFERENCE.

Although dietary requirements are different for each

person, depending upon such factors as age, sex,

body structure, ~~individual metabolism~~, heredity, and

and the physical requirements of our occupations, never-

theless each and every one of us requires a well-balanced

diet, a diet which contains the necessary amounts of more

than forty nutrients, including proteins, minerals, vitamins,

and sources of calories such as carbohydrates

SCENE 71.

AFTER MAKING THE CIRCUIT OF THE CONFERENCE TABLE, THE CAMERA ENDS THE PAN ON THE SECRETARY AND DOLLIES IN FOR A CU OF HER. THIS CU OF THE SECRETARY THEN DISSOLVES TO A CU OF THE SAME SECRETARY, BUT THIS TIME INSTEAD OF HOLDING HER DICTATION PAD, SHE IS HOLDING A SHOPPING LIST, CHECKING OFF THE ITEMS ON IT. THE CAMERA DOLLIES BACK TO REVEAL HER STANDING WITH HER SHOPPING CART, IN A SUPERMARKET.

NARRATOR:

When our young lady marries and raises a family,

she will find her responsibilities for selecting

a well-balanced diet increased.

SCENE 72.

THE SECRETARY IS NOW A HOMEMAKER WITH A SMALL CHILD IN THE CART AND ANOTHER WALKING BESIDE HER. SHE MOVES DOWN THE AISLE, PICKING UP ONE THING AFTER ANOTHER. THEN, HAVING TROUBLE FINDING SOMETHING, SHE LOOKS UP AT THE FOOD DIRECTORY LISTS THE VARIOUS FOOD CLASSIFICATIONS, (often alphabetically) ALONG WITH AISLE AND AREA LOCATION, e.g.: SOUPS, G-7: SALAD DRESSINGS, K-4: ETC.

She will be choosing the food, not simply for one

meal for herself, but for her entire family for

three meals a day. She will be able to make her

selection from the greatest abundance of food

in the widest variety at the lowest cost of any

housewife in any economy since time began.

How wise will her selection be? The scientist, looking

at this directory, might mentally convert it into the

nutrients it represents....

SCENE 73.

FOOD DIRECTORY ON WALL OF SUPERMARKET DISSOLVES INTO CHART OF 40 NUTRIENTS, ALONG WITH RDA FOR EACH.

NARRATOR:

...Along with the Recommended Dietary Allowances published by the National Research Council. The nutritional scientist also knows that research has established different figures for each of six significant groups of individuals...

SCENE 74.

THE ACTUAL RDA FIGURES AFTER EACH NUTRIENT WHIRL AROUND LIKE SLOT MACHINES OR SPEEDOMETERS, STOPPING AT THE CORRECT NUMBERS FOR EACH NUTRIENT AS THE NARRATOR INDICATES THE GROUP. (It's not important actually to be able to read these figures, although they should be correct, since they will be rather small, and also since they will be changing so rapidly.)

...The infant or pre-school child...

...The school age child, both boy and girl...

...The teen-aged boy and girl...

...The adult man or woman...

...The expectant mother...

...And the man or woman of advanced years.

Even more important...

SCENE 75.

COME IN FOR MCU ON CALCIUM, WHICH IS HIGHLIGHTED AS WE TRUCK IN UNTIL IT FILLS THE SCREEN, AND PULSATES ON AND OFF.

NARRATOR:

...The nutritionist understands that through years of research we have been able to ~~establish~~ learn more about the specific job done by each nutrient in the magnificent machinery of the human mechanism... Calcium for instance, which helps in at least four vital tasks... building bones and teeth...regulating the use of other minerals in the body, aiding the clotting of blood, and also playing an important role in the working of nerves and muscles.

SCENE 76.

TRUCK BACK FOR ENTIRE CHART, THEN HIGHLIGHT IRON, WHICH PULSATES AS CALCIUM HAD BEFORE.

Or iron, which combines with protein to form hemoglobin, the red substance in the blood which carries oxygen to the body cells.

SCENE 77.

PULLBACK TO SHOW ENTIRE CHART, ALL NUTRIENTS HIGHLIGHTED AND PULSING ON AND OFF.

And so it goes for each vital nutrient. More are being discovered each year, and more knowledge is acquired every day on the manner in which they perform their specialized and vital functions in preserving health and extending life. Of course, the scientist who spends his life investigating this exciting and complicated field of nutritional science...

SCENE 78.

THE ARTWORK OF THE NUTRIENTS DISSOLVES BACK INTO THE WALL DIRECTORY OF FOODS IN THE SUPERMARKET. THEN DOLLY BACK FROM WALL TO SHOW YOUND HOMEMAKER, WITH HER CHILDREN AND HER SHOPPING LIST, CHECKING IT AGAINST THE DIRECTORY.

NARRATOR:

...Must put the information uncovered by research into a practical form, so that the young homemaker can put this knowledge to work at the practical level when selecting the food for her family.

SCENE 79.

THE YOUNG HOMEMAKER PUSHES HER CART OVER TO FOUR OPEN DISPLAY TABLES, LABELED RESPECTIVELY "DAIRY FOODS" "MEAT GROUP" "VEGETABLES AND FRUITS", AND "BREADS AND CEREALS". THE CAMERA FOLLOWS HER IN A SLOW DOLLY PAST THEM, OR PERHAPS IN A WINDING, "S" SHAPED MEANDER. EACH TABLE CONTAINS SOME OF THE FOODS TYPICAL OF THE GROUP.

The solution to this problem has been the development of a balanced diet based upon daily servings from each of four groups of foods, which between them supply all the nutrients for every normal healthy person of every age... the dairy group of milk, cheese, and ice-cream...the meat group of meat, fish, poultry, eggs, dry beans, peas, or nuts...the vegetable and fruit group of dark green or yellow vegetables, citrus fruits, and tomatoes...and the bread group of enriched ~~breads~~ breads and whole grain cereals.

DISSOLVE TO:

SCENE 80.

HOMEMAKER TRANSFERS HER BUNDLES AND HER CHILDREN TO BABY CARRIAGE AND EXITS FROM STORE.

NARRATOR:

Ideally, everybody, of every age, could benefit from the balance interaction of the nutrients found in these four food groups.

Eliminate

DISSOLVE TO:

SCENE 81.

BUSY INTERSECTION ON MIDWESTERN STREET. HOMEMAKER WITH HER CARRIAGE, CHILDREN, AND GROCERIES, CROSSES, LEAVING ASSORTMENT OF PEOPLE ON STREET CORNER.

Some devices to measure from adequate diet to obesity

Americans could take full advantage of nutritional advances, but unfortunately we don't. Overweight is a major dietary problem in the United States, and it is estimated that about one fourth of all Americans are overweight...weighing about twenty percent more than they should.

DISSOLVE TO:

SCENE 82.

RESEARCHER WORKS WITH CHEMICAL PROCESSING EQUIPMENT.

It would seem that knowledge of nutrition is one thing, but applying that knowledge in our daily lives is an entirely different matter.

SCENE 83.

RESEARCHER STUDIES BLOOD CELL THROUGH MICROSCOPE.

NARRATOR:

Knowledge can improve the mind, but it can never help the body...unless it is put into practice.

SCENE 84.

PHOTOMICROGRAPHY OF BLOOD FLOWING THROUGH VESSELS OF THE BODY, PULSATING.

The work done by the scientific method can increase our body of information....

SCENE 85.

BLOOD CELL DISSOLVES SLOWLY INTO ECU OF HARRIED BUSINESSMAN EATING SANDWICH, PIE, AND COFFEE AT DESK, THEN TOSSING IT AWAY HALF EATEN.

...But the scientific method cannot change the pace of our intense and nervous society.

SCENE 86.

SECRETARY GOING THROUGH CAFETERIA LINE.

NARRATOR:

The dietitian can make out a fine menu, but she cannot accompany us down the cafeteria line....

SCENE 87.

EXECUTIVE GULPING COFFEE AT BREAKFAST, RUSHING OUT, DANISH IN HAND.

...The biochemist cannot force us to have a good breakfast...

SCENE 88.

CONSTRUCTION WORKER OPENING LUNCHBOX ON JOB.

...The nutritionist cannot pack our lunchbox every day...

SCENE 89.

ELEGANT RESTAURANT, ATTENTIVE HEADWAITER AND BUSBOY. COUPLE OUT FOR EVENING, GIVING ORDER FROM HUGE, ORNATE MENU.

...And the physician cannot look over our shoulder and make suggestions from the menu which are best for health.

SEQUENCE 90.

HECTIC SERIES OF AGGRAVATING SCENES OF NERVOUS INTENSITY IN DAILY LIVING. SHORT CUTS, BUILDING TO SENSE OF TENSENESS.

NARRATOR:

Our daily lives are scenes of sound and fury...

...But the basic decisions are up to each of

us individually.

SHARP JUMP CUT TO:
SCENE 91.

HOUSEWIFE USING LIST, MAKING SELECTIONS IN SUPERMARKET.

(MUSIC UP TO COVER.)

SCENE 92.

SUPER END TITLE OVER SUPERMARKET SCENE.

THE END.

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111 North Canal Street
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By

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August 20, 1964

SCENE 1.

EXTERIOR. EARLY MORNING. THE DARKNESS OF A MOON-LIT NIGHT BLURS A BARELY VISIBLE RIDGE AMID THE HILLS IN THE BACKGROUND.

(FADE IN BG MUSIC THAT CAPTURES THE SOMBER ATONALITY OF THE NIGHT.)

SCENE 2.

EXTERIOR. LATER IN THE A.M.
TIME-LAPSE PHOTOGRAPHY REVEALS THE FIRST INTIMATIONS OF DAWN BREAKING OVER THE RIDGE OF MOUNTAINS. THIS IS TO CAPTURE THE GROUND FOG ATMOSPHERE OF DAWN. MIGHT BE SEVERAL SCENES.

(PACE OF THE MUSIC PICKS UP WITH A BRIGHT, SUNSHINE TEMPO.)

SCENE 3.

THE SUN HAS RISEN NOW, AND THE CAMERA PANS OVER THE MOUNTAIN RIDGE, THEN SLOWLY DOWN TO A FARM IN THE VALLEY. THE HIGH CAMERA ANGLE REVEALS A RICH PATCHWORK OF GREEN, YELLOW, GOLD, BROWN, AND BLACK FIELDS OF CORN, ALFALFA, HAY, CABBAGE, LETTUCE, AND SUCH. THEY SURROUND THE NEAT, ORDERLY ARRANGEMENT OF A WELL-KEPT, PROSPEROUS FARM. THIS MIGHT ACTUALLY BE IN A SERIES OF CROSS DISSOLVES IF A SINGLE LOCATION IS UNOBTAINABLE.

SCENE 4.

THE CAMERA ZOOMS IN ON ONE OF THE FIELDS.

NARRATOR:

These are the colors of nature...

(NO PEOPLE APPEAR IN THE PICTURES FROM SCENES 4-19. FIRST PERSON APPEARS IN SCENE 20. THESE ARE NOT STILLS, SOME KIND OF CAMERA MOVEMENT IN EACH SCENE. EACH REPRESENTS A DIFFERENT COLOR OF NATURE, WHICH IS THE FORE SHADOWING OF SEQUENCE 25.)

CUT TO:

SCENE 5.

ECU. THREE OR FOUR EARS OF CORN AS SEEN ON THEIR STALKS.

CUT TO:

SCENE 6.

ECU. RIPE TOMATOES AS SEEN ON THE VINE JUST BEFORE PICKING.

CUT TO:

SCENE 7.

ECU. CONCORD GRAPES, RIPE ON THE VINE JUST BEFORE PICKING.

CUT TO:

SCENE 8.

ECU. A PATTERN SHOT OF CABBAGE OR HEADS OF LETTUCE STACKED FOR SHIPMENT. THEY GLISTEN FROM THE DEW.

CUT TO:

SCENE 9.

ECU. ORANGES STACKED IN A SIMILAR MANNER.

CUT TO:

SCENE 10.

ECU. GRAPEFRUIT COLLECTED IN OPENED SHIPPING CONTAINER.

CUT TO:

SCENE 11.

ECU. PURE WHITE CAULIFLOWER IN A BUSHEL BASKET.

CUT TO:

SCENE 12.

ECU. MILLED GRAIN RIGHT FROM THE COMBINE, IN PROCESSING PRIOR TO PACKAGING.

CUT TO:

SCENE 13.

ECU. A LOAF OF RYE BREAD. SEVERAL SLICES HAVE BEEN CUT FROM IT AND ARE PLACED TO ONE SIDE. A KNIFE CUTS THROUGH THE BREAD.

NARRATOR:

...The colors, indeed, of life itself.

CUT TO:

SCENE 14.

ECU. MILK IN A PAIL NEXT TO A JERSEY OR GUERNSEY. THE CAMERA BACKS AWAY TO REVEAL A CALF AT HER SIDE.

CUT TO:

SCENE 15.

A HERD OF HOLSTEINS.

CUT TO:

SCENE 16.

BLACK ANGUS STEERS GRAZE IN A PASTURE.

CUT TO:

SCENE 17.

A GROUP OF STEERS CLIMB A RAMP AND ENTER A RAILROAD CATTLE CAR.

NARRATOR:

Everywhere we find the dramatic evidence of nature's color-coded secrets...

CUT TO:

SCENE 18.

STEAK ON A CHARCOAL GRILL. TO NGS PICK UP THE STEAK.

...By which life maintains and perpetuates itself.

CUT TO:

SCENE 19.

CUT TO:

SCENE 19.

ECU. RICH LOOKING MALTED MILK POURS INTO A SPARKLING GLASS.

NARRATOR:

The color of food is part of nature's

mysterious, self-replenishing cycle

that serves the ultimate purpose...

The uninterrupted continuity of life.

CUT TO:

SCENE 20.

A SMALL BOY, SEATED AT THE FAMILY'S OUTDOOR PICNIC TABLE, TAKES UP A PIECE OF CHICKEN. HE ENJOYS HIS FOOD.

Every day nature provides an abundance

of food...

CUT TO:

SCENE 21.

THE BOY'S YOUNGER SISTER TAKES UP AN EAR OF CORN. GRINNING, SHE STARTS MUNCHING ON IT.

...And every day, food provides us with the

nutrients necessary for health and well being.

(BG MUSIC UP TO COVER TITLES.)

SCENE 22.

PICNIC TABLE TOP DISSOLVES INTO WOOD PATTERN, WHICH BECOMES B.G. FOR TITLES.

MAIN TITLE: LETTERING.

FOOD FOR THOUGHT

SCENE 23.

PRESENTS TITLE.

SCENE 24.

CREDIT TITLES.

DISSOLVE TO:

SCENE 25.

ANIMATION SPECIAL EFFECT.
BLACKNESS. GRADUALLY, WHITE SMOKE INTRUDES ON THE SCENE. COLORED LIGHTS -- FIRST WHITE, THEN RED, GREEN, BLUE--PLAY ON THE SMOKE. EACH COLOR IS EMPHASIZED THROUGH A SERIES OF QUICK DISSOLVES TO DUPLICATE THOSE OF THE OPENING SEQUENCE: YELLOW, GOLD, RED, BLUE, GREEN, ORANGE. THE ORDER OF THE COLORS IS FROM HOT TO COOL.

NARRATOR:

DURING all the millions of centuries that followed its violent birth, the solar system hurtled through space. And the earth gradually cooled.

DISSOLVE TO:

SCENE 26.

LIVE ACTION. INTERIOR. STUDIO TABLE TOP. SOMBER HUES AND VAGUE OUTLINES IDENTIFY A RUGGED, BARREN TERRAIN. IN THE BACKGROUND, FAINT STARS BLINK ON IN THE PERIPHERAL BLACK AND OUTLINE THE TOPOGRAPHY OF A SECTION OF THE EARTH BEFORE LIFE BEGAN. THIS IS A DIORAMA IN MINATURE. SCENES 26 to 30 are ONE LONG SMOOTH DOLLY FROM L.S. TO ECU.

SCENE 27.

THE SCENE GROWS BRIGHTER AS A SERIES OF QUICK DISSOLVES GIVES THE IMPRESSION OF A RETURNING SPACE VEHICLE. THE EARTH'S TERRAIN IS SEEN IN GREATER DETAIL; A BODY OF WATER APPEARS AS WE MOVE IN TIGHTER. AT THE WATER'S EDGE, A TINY LIGHT APPEARS. IT SPARKLES LIKE A DIAMOND.

NARRATOR:

At last, the circumstances that stimulate life on earth were just exactly right. From inorganic matter sprung the first seeds of life itself.

DISSOLVE TO:

SCENE 28.

VIEW OF THE EARTH IS ENCLOUDED IN SMOKE UPON WHICH COLORED LIGHTS PLAY AS IN SCENE 27. SMALL WHITE LIGHTS SHINE ON AND DISAPPEAR THROUGH THE CLOUDS.

NARRATOR:

More and more organic matter came into being--only to perish again. This constant cycle of creation and destruction continued for thousands and thousands of centuries.

DISSOVLE TO:

SCENE 29.

THE CLOUDS OF SMOKE SEPARATE AS PATCHWORK BLOCKS OF COLOR BLAZE FROM THE EARTH.

NARRATOR:

Finally, life took hold because it found the food essential to sustain and perpetuate itself. Life is here to stay.

SCENE 30.

THIS NEED NOT NECESSARILY BE CONTINUOUS WITH SCENE 29. LIGHTS ALONG THE COAST OF THE WATER FADE IN AND OUT IN RAPID SUCCESSION. BUT MORE AND MORE OF THEM PERSIST AND GLOW CONSTANTLY. THE CAMERA DOLLIES IN ON ONE OF THEM. THE LIGHT SLOWLY ENVELOPES THE SCREEN. THE EFFECT IS THAT OF A MANY-FACETED DIAMOND.

(SOUNDTRACK: THE ETHEREAL TONES OF MUSIC BECOME A SIMPLE MELODY AS THE MUSIC BUILDS FROM THIS POINT UNTIL THE START OF MAN'S STRUGGLE FOR SURVIVAL IN A HOSTILE WORLD.)

CUT TO:

SCENE 31.

PHOTOMICROGRAPHY SEQUENCE FOLLOWS THE MOVEMENTS OF THE MOST BASIC PLANT ANIMAL, A FLAGELIATE.

As ages pass to ages...the conditions of life constantly change, imperceptibly but inevitably...

DISSOLVE TO:

SCENE 32.

ARTWORK. MORE COMPLEX MARINE LIFE. A LICHEN AFFIXES ITSELF TO A ROCK AND FINALLY A SMALL FISH-LIKE CERTEBRATE, SUCH AS A TADPOLE, APPEARS. HE CRAWLS OUT OF THE WATER AND SLITHERS INTO THE MUD OF THE SHORE.

NARRATOR:

The first living beings accommodated to the existing food supply in the continuing struggle for survival.

CUT TO:

SCENE 33.

ARTWORK. STILL LIFE DRAWINGS IN RAPID SEQUENCE OR LIMITED ANIMATION OF A DINOSAUR: A BRONTOSAURUS.

Many prehistoric animals failed to cope with changing conditions, and...

SCENE 34.

ARTWORK. STILL LIFE DRAWINGS IN RAPID SEQUENCE OR ANIMATION OF MAMMOTHS.

Unable to find food, they perished.

CUT TO:

SCENE 35.

ARTWORK. STILL LIFE DRAWINGS. A PACK OF WILD HORSES RACE ACROSS THE WESTERN PLAINS: OR A PACK OF WOLVES ARE SEEN IN T HEIR NATURAL HABITAT. THEN A DRAGON FLY.

Other species were so adaptable that for hundreds of thousands of years, they have scarcely changed at all. Then, as now...

food controlled life.

CUT TO:

SCENE 36.

ARTWORK.
RAPID SEQUENCE STILLS OF FOSSILS OR PRIMITIVE DRAWINGS BY CAVEMEN OF PREHISTORIC ANIMALS.

NARRATOR:

The secret of survival is clear...

Either adapt to change, or perish from

the face of the earth.

DISSOLVE TO:

SCENE 37.

LIVE ACTION. MUSEUM. TABLETOP.
A DIORAMA OF A PRIMEVAL FOREST FROM THE EARLY PLEISTOCENE PERIOD. PLANT AND ANIMAL LIFE OF THE PERIOD ARE REPRESENTED INCLUDING THREE OR FOUR PREHISTORIC MEN GROUPED IN A BRASSY OPEN SPACE ON THE GROUND.

The most venturesome prehistoric creature

is man.

SCENE 38.

MUSEUM. A DIORAMA DEPICTS A GROUP OF CAVEMEN SHOWN ON THE HUNT FOR FOOD.

He leaves the comparative safety of the

trees to forage on the ground where food

is more plentiful.

CUT TO:

SCENE 39.

MUSEUM. DIORAMA DEPICTS A GROUP OF CAVEMEN FASHIONING TOOLS AND HUNTING WEAPONS.

NARRATOR:

He learns to walk erect, to fashion crude tools for protection and for hunting.

SCENE 40.

MUSEUM. DIORAMA DEPICTS CAVEMEN EATING.

He eats what food he can find, and, surprisingly, his diet is reasonably adequate to meet his needs. But still, he must forage when food is plentiful... and starve when it is scarce.

CUT TO:

SCENE 41.

LIMITED ANIMATION OF HISTORICALLY AUTHENTIC ARTWORK. BABYLONIAN ERA. A GROUP OF EARLY FARMERS HARVEST GRAIN IN THE BACKGROUND WHILE WOMEN MILL IT IN THE FOREGROUND. THIS MATERIAL SHOULD BE SECURED FROM LIBRARY ARCHIVES AND SIMILAR RESEARCH SOURCES.

This tenuous balance of feast and famine continues for millions of years, until man learns to control food instead of hunting for it.

CONTINUE SEQUENCE THROUGH SCENE 45. (The length of this Sequence will depend upon the quantity of material available.)

SCENE 42.

LIMITED ANIMATION CLOSE-UP OF EARLY WOMEN MILLING GRAIN, DOING OTHER ELEMENTARY AGRICULTURAL TASKS.

NARRATOR:

He gathers wild seeds and plants them, and he tames wild animals. Modern civilization -- and commerce -- are born...based upon the systematic production of food...the activity which we call agriculture.

SEQUENCE 43.

LIMITED ANIMATION OF FARMERS WORKING IN THE FIELD. THROUGH A SERIES OF RAPID DISSOLVES, THE GRADUAL IMPROVEMENT OF FARMING METHODS IS DEPICTED; MECHANIZATION GRADUALLY INCREASES PRODUCTIVITY WHILE THE NUMBER OF PEOPLE WORKING IN THE FIELDS SLOWLY DECLINES.

(SOUNDTRACK: THE ORIGINAL SCORE IS BASED ON EARLY 19TH CENTURY FOLK TUNES, SUCH AS SHENANDOAH, JOHNSON'S OLD GREY MARE, ETC.

DISSOLVE TO:

SEQUENCE 44.

A COMBINATION OF 19TH CENTURY FARMING SCENES AND PHOTOGRAPHS OF FARM IMPLEMENTS BEGINS A DRAMATIC PICTUR E RHYTHM SEQUENCE THAT CONVEYS THE FEELING OF THE DRUDGERY OF LIFE IN THE COUNTRY DURING THE FIRST HALF OF THE 19th CENTURY.

NARRATOR:

Almost overnight, the industrial revolution in the Western World sweeps aside ancient farming methods.

(THE MUSIC SEQUES BRIEFLY TO SOME CIVIL WAR TUNES AND THEN INTO MELODIES OF WAGON TRAINS, RAILROADING, AND THE COWBOY.)

DISSOLVE TO:

SEQUENCE 45.

PICTURE RHYTHM USING STILL PHOTOGRAPHS AND PAINTINGS DEPICTS THE HANDRAKE REPLACING THE HORSE-DRAWN HAYRACK; THE HAND-SICKLE DISSOLVES INTO THE McCORMICK REAPER, ETC. THE FAMILY CHORES OF MILKING, MILK SEPARATING, CHURNING, AND SLAUGHTERING FIVE WAY TO THE EARLY COMMUNITY DAIRY, FLOUR MILL, SUGAR REFINERY, AND MEAT-PACKING HOUSE.

The productivity of the American farmer leaps... two! ... five! ... thirty times!

DISSOLVE TO:

SEQUENCE 46.

CONTINUATION OF SAME TECHNIQUE AS SEQUENCE 45. STILL PHOTOGRAPHS IN RAPID SEQUENCE: HOME CANNING METHODS: A CRACKER BARREL, PICKLES, CANNED FOODS, SAUERKRAUT, AND OTHER ITEMS THAT MIGHT BE FOUND IN A 19TH CENTURY PANTRY.

DISSOLVE TO:

SCENE 47.

ON AN ANIMATION STAND, THE CAMERA CAPTURES THE EXCITEMENT OF EDITORIAL FOOD PAGES FROM WOMEN'S SERVICE MAGAZINE AND DEMONSTRATES THE EVOLUTION OF PRESERVATION METHODS AT THE TURN OF THE CENTURY. LADIES HOME JOURNAL, McCALL'S, McCLURES, DELINEATOR, ETC.

NARRATOR:

Industrial technology not only revolutionizes the farm, it also changes our ways of preserving and preparing food.

CUT TO:

SCENE 48.

TWO STILL PICTURES. AN UNATTENDED MODERN MILKING MACHINE - IN COLOR IS SUPERIMPOSED OVER STILL B&W. PHOTOGRAPH OF MILKING METHOD 50 YEARS AGO.

SCENE 49.

TWO STILL PICTURES. THE LATEST MODEL SELF-PROPELLED McCORMICK REAPER IN COLOR IS SUPERIMPOSED OVER STILL B.&W. PHOTOGRAPH OF SEVERAL WORKERS BUNDLING HAY IN THE FIELDS.

SCENE 50.

TWO STILL PICTURES. PRODUCTION LINE MANUFACTURING AND CONTINUOUS PACKAGING MACHINERY IN COLOR PRODUCING BUTTER IS SUPERIMPOSED OVER STILL B&W PHOTOGRAPH OF WOMAN CHURNING BUTTER. 1964 MODELS OF LATEST EQUIPMENT.

DISSOLVE TO:

SEQUENCE 51.

SPREADS OF WOMEN'S SERVICE MAGAZINE PAGES FROM THE 20'S THROUGH THE 30'S, 40'S, TO THE PRESENT.

SCENE 52.

BLOW-UP A SLIDE AS STUDIO B.G. PROCESS SHOT, AGAINST A FERRO-TYPE BACKGROUND OF A TURN-OF-THE-CENTURY WOMAN, WHO IS PEELING POTATOES, A MODERN HOUSEWIFE IN MOTION PICTURE, POURS A PACKAGE OF INSTANT POTATOES FROM A BOX INTO A MIXING BOWL.

NARRATOR:

In this land of plenty, fewer people produce more food for more people than ever before. Today, the American farmer feeds himself and thirty other persons.

SCENE 53.

MOTION PICTURE. STOCK. INDIAN FARMER PLOWS HIS FIELD WITH DRAFT ANIMAL. THE FIELD IS FULL OF WATER, AND THE FARMER IS POORLY DRESSED.

But in most of the world, people still struggle to feed themselves and their families.

SCENE 54.

GREEK FARMER HOES ROCKY SOIL. STOCK FOOTAGE.

NARRATOR:

Although man has made impressive progress against starvation, the figures are still very discouraging.

SCENE 55.

STREET SCENE IN ASIA. FAMILY EATING POOR MEAL. STOCK FOOTAGE.

Approximately ~~two-thirds~~ one-third to a half of the world's population still suffers from malnutrition...

SCENE 56.

STOCK FOOTAGE. STARVING CHILDREN IN UNDERDEVELOPED AREA. ESTABLISH HOSPITAL WARD B.G.

...And ~~one-half the children born in the world today do not live past the age of five, due to~~ in about one-half of the children who die before the age of five, a principal factor is malnutrition, including protein and calorie deficiency. We do understand the causes of these diseases...

Not quite correct. We know the cure but the return of the deficient and bad conditions not known

DISSOLVE TO:

SCENE 57.

HOSPITAL LAB SCIENTIST MOVING BINOCULAR MICROSCOPE TOWARD HIM, ADJUSTING FOCUS AND STAGE.

NARRATOR:

...Because of the advances made in the science of nutrition during the last fifty years. Starting with a study of the single cell itself...

SCENE 58.

PHOTOMICROGRAPHY. SINGLE CELL ANIMAL ABSORBING FOOD, RESPONDING TO ENVIRONMENTAL CHANGES, MOVING ABOUT, ETC.

...Scientists have been able to investigate which nutrients are required, and in many cases the amounts required.
We also know a great deal about the influence of chemical and physical factors, and the relationship between genetics and metabolism. What we have learned from our work on the single cell...

SCENE 59.

GROUP OF LABORATORY ANIMALS EATING IN CAGES.

...Has been further investigated by nutritional evaluations on laboratory animals...

SEQUENCE 60.

GROUP OF ADULT PATIENTS BEING FED ON FOOD TRAYS IN HOSPITAL. THEY'RE NOT SICK PEOPLE. NORMAL CONTROL PATIENTS IN A DIETETIC WARD. INTERCUT WITH CU AND MED. SHOTS.

NARRATOR:

...And finally authenticated in clinical studies on a massive scale. The study of nutrition has involved scientists of many interdependent interdependent disciplines...the food technologist, the agriculturalist, the biochemist, the physicist, the geneticist, the family physician, the dietitian, and many, many others...in fact, the entire spectrum of modern science.

DISSOLVE TO:

SEQUENCE 61.

LIMITED ANIMATION. TIME - HISTORY GRAPH. START WITH SINGLE CELL, SCRATCH-OFF TO POINT IN TIME WHERE LIFE BEGINS, ON TO 1964. THEN REVERSE AS INDICATED.

So, during the last fifty years, we have finally begun to understnad the factors that influence nutrition in the single cell and in man himself. Now for the first time in human history, the science of nutrition has given us the information we need to feed ourselves properly. As with any information however...

CUT TO:

SEQUENCE 62.

CANDID PHOTOGRAPHY AT A LARGE WELL-APPOINTED CAFETERIA WITH A GREAT VARIETY OF FOOD. AFTER AN ESTABLISHING SHOT, THE MOBILE CAMERA FOLLOWS ONE GIRL DOWN THE LINE AND ZEROES IN ON HER CHOICES FOR LUNCH. FIRST, SHE PICKS UP A SALAD, THEN PUTS IT BACK. INSTEAD, SHE SELECTS A CELLOPHANE PACKAGED OF CRACKERS. SHE ALSO PICKS OUT A GLASS OF ICED TEA OR A CUP OF COFFEE. THE FIRST PERSON, MOBILE CAMERA FOLLOWS HER ALONG THE CAFETERIA LINE AND PAUSES NOW AND THEN AS SHE BRIEFLY CONSIDERS ALOUD WHETHER TO CHOOSE THIS DISH OR THAT. MEANWHILE, THE NARRATIVE DETAILS WHY SHE DOESN'T CHOOSE THIS OR THAT ITEM. THE FIRST GROUP IS FRUIT JUICES.

NARRATOR:

...Knowing what is right, does not mean that we will do what is right!

SECRETARY: (Whispered voice of her conscience) Let's see, now, I had juice and coffee for breakfast. No juice.

SCENE 63.

SALADS. CAMERA ZEROS IN ON VARIOUS DISHES. SECRETARY HESITATES OVER SEVERAL OF THEM AND FINALLY MOVES ON.

SECRETARY:

Salad? I'm tired of salad.

SCENE 64.

IN RHYTHMIC MOTION, CAMERA PANS OVER MEAT DISHES: SPAGHETTI: HAMBURGER PATTIES WITH RICE AND ONIONS.

SECRETARY:

No...None of that stuff.

SCENE 65.

IN RHYTHMIC MOTION, CAMERA PANS OVER THE VEGETABLES.

Can't stand vegetables. Ugh!

SCENE 66.

CAMERA LINGERS INVITINGLY OVER THE DESSERT SECTION. SHE TAKES A PIECE OF PIE.

No resistance. Oh, well.

SCENE 67.

CAMERA FALLS TO THE COFFEE AND TEA URNS. SECRETARY PICKS UP A GLASS OF TEA.

Iced tea. It's hot today.

SCENE 68.

SECRETARY CARRIES HER TRAY TO TABLE AND SITS DOWN AT TABLE.

NARRATOR: (O.S.)

But a glass of iced tea and a piece of pie are

a totally inadequate lunch for anyone...

SCENE 69.

SECRETARY SEATED IN FRONT OF HER TRAY MATCH DISSOLVES TO SAME GIRL SEATED AT HER TYPEWRITER.

NARRATOR: (O.S.)

...Even a young woman leading a very sedentary life doing work which requires relatively little physical effort.

SCENE 70.

THE SECRETARY STANDS UP, TAKES A DICTATION PAD, AND GOES INTO HER BOSS' OFFICE. HE IS AN OLDER MAN. HE IS IN CONFERENCE WITH A GROUP OF ABOUT SIX INDIVIDUALS. THE SECRETARY SITS DOWN TO TAKE NOTES ON THE MEETING, AND THE CAMERA TRAVELS AROUND THE TABLE, GETTING SHOTS OF THE DIFFERENT PEOPLE IN THE CONFERENCE.

Although dietary requirements are different for each person, depending upon such factors as age, sex, body structure, and physical activity... nevertheless each and every one of us requires a well-balanced diet, a diet which contains the necessary amounts of more than forty nutrients, including proteins, minerals, vitamins, trace elements, and sources of calories such as carbohydrates and fat.

SCENE 71.

AFTER MAKING THE CIRCUIT OF THE CONFERENCE TABLE, THE CAMERA ENDS THE PAN ON THE SECRETARY AND DOLLIES IN FOR A CU OF HER. THIS CU OF THE SECRETARY THEN DISSOLVES TO A CU OF THE SAME SECRETARY, BUT THIS TIME INSTEAD OF HOLDING HER DICTATION PAD, SHE IS HOLDING A SHOPPING LIST, CHECKING OFF THE ITEMS ON IT. THE CAMERA DOLLIES BACK TO REVEAL HER STANDING WITH HER SHOPPINH VART, IN A SUPERMARKET.

NARRATOR:

When our young lady marries and raises a family,

she will find her responsibilities for selecting

a well-balanced diet increased.

SCENE 72.

THE SECRETARY IS NOW A HOMEMAKER WITH A SMALL CHILD IN THE CART AND ANOTHER WALKING BESIDE HER. SHE MOVES DOWN THE AISLE, PICKING UP ONE THING AFTER ANOTHER. THEN HAVING TROUBLE FINDING SOMETHING, SHE LOOKS UP AT THE FOOD DIRECTORY ON THE WALL, WHICH LISTS THE VARIOUS FOOD CLASSIFICATIONS, (often alphabetically) ALONG WITH AISLE AND AREA LOCATION, e.g.: SOUPS, G-7: SALAD DRESSINGS, K-4: ETC. THE SUPERMARKET SHOULD BE THE BRIGHTEST, BEST-STOCKED, MOST MODERN DIVE WE CAN FIND.

She will be choosing the food, not simply for one

meal for herself, but for her entire family for

three meals a day. She will be able to make her

selection from the greatest abundance of food

in the widest variety at the lowest cost of any

housewife in any economy since time began. How

wise will her selection be? The scientist, looking

at htis directory, might mentally convert it into the

nutrients it represents...

SCENE 73.

ANIMATION. FOOD DIRECTORY ON WALL OF SUPERMARKET DISSOLVES INTO CHART OF 40 NUTRIENTS, ALONG WITH RDA FOR TEN OF THEM.

NARRATOR:

...Along with the Recommended Dietary Allowances published by the National Research Council. The nutritional scientist also knows that the Council has established different figures for each of sex significant groups of individuals...

SCENE 74.

ANIMATION. SILHOUETTE OF CHILD CHANGES WITH NUMERALS. THE ACTUAL RDA FIGURES AFTER EACH NUTRIENT WHIRL AROUND LIKE SLOT MACHINES OR SPEEDOMETERS, STOPPING AT THE CORRECT NUMBERS FOR EACH NUTRIENT AS THE NARRATOR INDICATES THE GROUP. (It's not important actually to be able to read these figures, although they should be correct, since they will be rather small, and also since they will be changing so rapidly)

...The infant or pre-school child...

...The school age child, both boy and girl...

...The teen-aged boy and girl...

...The adult man or woman...

...The expectant mother...

...And the man or woman of advanced years.

Even more important...

SCENE 75.

ANIMATION. THESE SHOULD BE EXPANDED TO INCLUDE SOME ELECTRON PHOTOMICROGRAPHS, ETC. COME IN FOR MCU ON CALCIUM, WHICH IS HIGHLIGHTED AS WE TRUCK IN UNTIL IT FILLS THE SCREEN, AND PULSATES ON AND OFF.

NARRATOR:

...The nutritionist understands that through years of research we have been able to learn more about the specific job done by each nutrient in the magnificent machinery of the human mechanism... Calcium for instance, which helps in at least four vital tasks...building bones and teeth... regulation the use of other minerals in the body, aiding the clotting of blood, and also playing an important role in the working of nerves and muscles.

SCENE 76.

ANIMATION. TRUCK BACK FOR ENTIRE CHART, THEN HIGHLIGHT IRON, WHICH PULSATES AS CALCIUM HAD BEFORE.

Or iron, which combines with protein to form hemoglobin, the red substance in the blood which carries oxygen to the body cells.

SCENE 77.

ANIMATION. PULLBACK TO SHOW ENTIRE CHART, ALL NUTRIENTS HIGHLIGHTED AND PULSING ON AND OFF.

NARRATOR:

And so it goes for each vital nutrient. We are acquiring more knowledge every day on the manner in which they perform their specialized and vital functions in preserving health and extending life. Of course, the scientist who spends his life investigating this exciting and complicated field of nutritional science...

SCENE 78.

ANIMATION. THE ARTWORK OF THE NUTRIENTS DISSOLVES BACK INTO THE WALL DIRECTORY OF FOODS IN THE SUPERMARKET. THEN DOLLY BACK FROM WALL TO SHOW YOUNG HOMEMAKER, WITH HER CHILDREN AND HER SHOPPING LIST, CHECKING IT AGAINST THE DIRECTORY.

...Must put the information uncovered by research into a practical form, so that the young homemaker can put this knowledge tow ork at the practical level when selecting the food for her family.

SCENE 79.

THE YOUNG HOMEMAKER PUSHES HER CART OVER TO FOUR OPEN DISPLAY TABLES, LABELED RESPECTIVELY "DAIRY FOODS" "MEAT GROUP" "VEGETABLES AND FRUITS", AND "BREADS AND CEREALS". THE CAMERA FOLLOWS HER IN A SLOW DOLLY PAST THEM, OR PERHAPS IN A WINDING "S" SHAPED MEANDER. EACH TABLE CONTAINS SOME OF THE FOODS TYPICAL OF THE GROUP. WE WOULD HAVE TO BUILD THIS DISPLAY IN A SUPERMARKET. IT IS, OF COURSE, STYLIZED AND ARTIFICIAL. IT WOULD NOT BE ANYTHING ALREADY IN EXISTENCE.

NARRATOR:

A practical approach to this problem may be found in a plan based upon daily servings from each of four groups of foods, which between them supply the nutrients for every normal healthy person of every age...the dairy group of milk, cheese, and ice-cream...the meat group of meat, fish, poultry, eggs, dry beans, peas or nuts...the vegetable and fruit group of dark green or yellow vegetables, citrus fruits, and tomates...and the bread group of enriched and whole grain breads and cereals. To this foundation we would add other foods such as fats and carbohydrates.

DISSOLVE TO:

SCENE 80.

HOMEMAKER TRANSFERS HER BUNDLES AND HER CHILDREN TO BABY CARRIAGE AND EXITS FROM STORE.

NARRATOR:

Ideally, everybody, of every age, could benefit from the nutrients found in these groups of foods, which work together to meet the nutritional needs of the body.

SCENE 83.

RESEARCHER STUDIES BLOOD CELL THROUGH MICROSCOPE.

Knowledge can improve the mind, but it can never help the body...unless it is put into practice.

SCENE 84.

PHOTOMICROGRAPHY OF BLOOD FLOWING THROUGH VESSELS OF THE BODY, PULSATING.

The use of the scientific method can increase our body of information...

SCENE 85.

BLOOD CELL DISSOLVES SLOWLY INTO ECU OF HARRIED BUSINESSMAN EATING SANDWICH, PIE, AND COFFEE AT DESK, THEN TOSSING IT AWAY HALF EATEN.

NARRATOR:

...But the scientific method cannot change the pace of our intense and nervous society.

SCENE 86.

SECRETARY GOING THROUGH CAFETERIA LINE. what?

The dietitian can make out a fine menu, but she cannot accompany us down the cafeteria line....

SCENE 87.

EXECUTIVE GULPING COFFEE AT BREAKFAST, RUSHING OUT, DANISH IN HAND.

...The biochemist cannot force us to have a good breakfast...

SCENE 88.

CONSTRUCTION WORKER OPENING LUNCHBOX ON JOB.

...The nutritionist cannot pack our lunchbox every day...

SCENE 89.

ELEGANT RESTAURANT, ATTENTIVE HEADWAITER AND BUSBOY. COUPLE OUT FOR EVENING, GIVING ORDER FROM HUGE, ORNATE MENU.

NARRATOR:

...And the physician cannot look over our shoulder and make suggestions from the menu which are best for health.

SEQUENCE 90.

Our lives of scenes of sound and fury...

HECTIC SERIES OF AGGRAVATING SCENES OF NERVOUS INTENSITY IN DAILY LIVING. SHORT CUTS, BUILDING TO SENSE OF TENSENESS. THESE MIGHT BE SOME EXAMPLES:

1. Racing someone to a cab...losing the race.
2. Girl being splattered by dirty water from a passing car.
3. Executive shouting into a telephone very angrily.
4. Long line of cars stalled on highway.
5. Housewife rushing, burning her fingers picking up a hot pan.
6. Man angrily pounding cigarette vending machine, trying to ger his money back.
7. Bus driver and woman driver arguing over minor accident.
8. Little girl drips glass in kitchen, breaking it.
9. Man putting on shirt in front of mirror, collar too small on him.

SHARP JUMP CUT TO:

SCENE 91.

HOUSEWIFE USING LIST, MAKING SELECTIONS IN SUEPRMARKET.

... But the basic decisions are up to each of us individually.

CAMERA TILTS DOWN TO ECU OF HER SHOPPING LIST. IT DISSOLVES INTO PATTERN OF PAPER, WHICH BECOMES B.G. FOR END TITLES.

SCENE 92.

SUPER END TITLE OVER BACKGROUND OF PAPER PATTERNS FROM SHOPPING LIST.

THE END.

MUSIC UP TO COVER AND OUT.

Send opinion by July 1

National Dairy Council

111 NORTH CANAL STREET · CHICAGO, ILLINOIS 60606

AREA CODE 312 • 372-3156

June 24, 1964

Dr. Robert E. Shank
Washington University
Department of Preventive Medicine
and Public Health
660 South Euclid
Saint Louis, Missouri 63110

Dear Dr. Shank:

The first draft of the shooting script is attached. It is difficult to describe a question Steve and I have about the script without prejudicing you. But it is important and a decision will have to be made.

We felt upon first reading that the scientific basis for the nutritional information included in the film was missing. It was discussed with Stan. He explained that he originally had it in but took it out for what he considers good reasoning. His rationale is attached. The question, of course, still needs to be resolved.

I have sent the script to the reviewers even though I am aware of some necessary modification. We still are tentatively planning for the July 7 meeting. Will you be able to work this into your vacation plans?

Sincerely,

Lorraine Weng

Lorraine Weng, Director
Department of Materials Development

LW:cd

RATIONALE ON FIRST DRAFT SHOOTING SCRIPT

"FOOD FOR THOUGHT"

National Dairy Council
111 North Canal Street
Chicago, Illinois 60606

By: Stanford Sobel

One element which is "missing" from this film was intentionally omitted.

That element is the scientific basis for the nutritional information included in the picture. It would seem at first glance that a picture on nutrition of this type would have to treat this subject in at least these two aspects:

1. The story of the recent advances in nutritional scientific investigation.

2. The connection between growth in individual cells and human nutrition.

This is the rationale behind the carefully calculated decision to omit this material from the film:

1. Length and depth.

In order to handle a problem of this magnitude, and to do it on anything other than the most superficial basis of "Gee Whiz, But Science Is Wonnerful!" we would have to have a minimum of eight to ten minutes of film devoted to this subject alone. The first rule of any film addressed to the general public is that you have to start with people wherever they are, and proceed forward from that point. Now if we were addressing the film to third year medical students, we might very well be able to include this material, and to do the job in perhaps five minutes or so because they already have a substantial stock of knowledge and information on the literature. But to do an adequate job with the general public we would have to be very elementary on cytology, we would have to clarify the technique of using normal control patients, and we would have to teach them a great many other things about the problems in order for them to be able to appreciate the significance of the solutions. If it is a job that can be done with film as a medium at all, (and there is some doubt in the writer's mind), then it would certainly require a film devoted entirely to this subject alone.

2. Visual context.

What exactly would we show in a sequence of this kind? We might get some challenging and exciting photomicrography, (which would have to be explained to make it significant). We would also have some exotic looking apparatus, which would impress the average person, but would be immediately recognizable to the laboratory technician as a standard gas chromatograph, an analytical colorimeter, or a high speed centrifuge. And we might add some typical scenes of people in lab coats looking through binary and electronic

microscopes, and that's all such familiar material that even the little we already have in the picture approaches a photographic cliche. Effective scientific research simply doesn't have the drama of a rocket take-off, the color of a huge agricultural combine, or the simplicity of stomach acid being neutralized by a tablet of bicarbonate. Whatever drama there ever was in nutritional research from a visual standpoint has been ruined for us for good by the sixty second TV commercial and the sixty minute hospital dramatic series.

3. Emotional Commitment.

Basically, this film is not intended to give information or to educate per se. It is designed to motivate people to do a better job of selecting their food, when the option is theirs to exercise. What this means is that we want them to make an emotional commitment in the direction of better diet, after they have seen this picture. We have no hope of convincing the confirmed food faddist that he should forego peanut butter, sea water, and wheat germ (although we hope it will shake him up a bit). What we are after, after all, is the home-maker who is responsible for her family's health, and the youngsters who will some day be in that position. If we can convince them of the importance of good diet, they will make this emotional commitment in our favor, and in order to accomplish that objective we have taken a somewhat indirect, but far more powerful, emotional route . . . that of documentary truth . . . best illustrated by the sequences employing "slice-of-life" type of cinematography.

4. How It Works.

We establish the general validity of our over-all message by telling our audience things it already accepts as truth, and doing so in a manner which has a highly original cast to it. When the audience sees the executive under pressure, the secretary marching down a cafeteria line, the husband rushing off to work, the audience nods its head (figuratively) as if to say, "Yes, that's true; that's certainly the way people are." The authenticity of this entire film carries over into the area of nutritional research so that we do not have to protesteth too much that we are telling the truth, that we know what we're talking about, and that what we say is factually accurate. We set a realistic stage, paint an honest background, people the stage with believable characters, and they then enact a drama which is recognized at once as true and authentic. When we finally state the moral, nothing could be further gained by trying to prove its truth with facts and figures, charts and tables, statistics and experimental data.

Summed up briefly, the rationale for omitting this material is the writer's point of view that the difference between a motion picture and a film that moves people is the emotional matrix of the film itself, which in this case militates against the inclusion of defensive data on proof of performance and the accuracy of the information.

REID H. RAY FILM INDUSTRIES, INC.

INDUSTRIAL MOTION PICTURES
SLIDE FILMS
TELEVISION COMMERCIALS

an
original
presentation
in
visual
communication

FOOD FOR THOUGHT

First Draft Shooting Script
For A Color Sound Motion Picture
Prepared Especially For

NATIONAL DAIRY COUNCIL
111 North Canal Street
Chicago, Illinois

by

Reid H. Ray Film Industries, Inc.

Stanford Sobel
June 15, 1964

SCENE 1.

THE DARKNESS OF A MOON-LIT NIGHT BLURS A BARELY VISIBLE RIDGE AMID THE HILLS IN THE BACKGROUND.

(FADE IN BG MUSIC THAT CAPTURES THE SOMBER ATONALITY OF THE NIGHT.)

SCENE 2.

TIME-LAPSE PHOTOGRAPHY REVEALS THE FIRST INTIMATIONS OF DAWN BREAKING OVER THE RIDGE OF MOUNTAINS.

(PACE OF THE MUSIC PICKS UP WITH A BRIGHT, SUNSHINE TEMPO.)

SCENE 3.

THE SUN HAS RISEN NOW, AND THE CAMERA PANS OVER THE MOUNTAIN RIDGE, THEN SLOWLY DOWN TO A FARM IN THE VALLEY. THE HIGH CAMERA ANGLE REVEALS A RICH PATCHWORK OF GREEN, YELLOW, GOLD, BROWN, AND BLACK FIELDS OF CORN, ALFALFA, HAY, CABBAGE, LETTUCE, AND SUCH. THEY SURROUND THE NEAT, ORDERLY ARRANGEMENT OF A WELL-KEPT, PROSPEROUS FARM. THIS MIGHT ACTUALLY BE IN A SERIES OF CROSS DISSOLVES IF A SINGLE LOCATION IS UNOBTAINABLE.

SCENE 4.

THE CAMERA ZOOMS IN ON ONE OF THE FIELDS.

NARRATOR:

These are the colors of nature...

CUT TO:

SCENE 5.

ECU. THREE OR FOUR EARS OF CORN AS SEEN ON THEIR STALKS.

CUT TO:

SCENE 6.

ECU. RIPE TOMATOES AS SEEN ON THE VINE JUST BEFORE PICKING.

CUT TO:

SCENE 7.

ECU. CONCORD GRAPES, RIPE ON THE VINE JUST BEFORE PICKING.

CUT TO:

SCENE 8.

ECU. A PATTERN SHOT OF CABBAGE OR HEADS OF LETTUCE STACKED FOR SHIPMENT. THEY GLISTEN FROM THE DEW.

CUT TO:

SCENE 9.

ECU. ORANGES STACKED IN A SIMILAR MANNER.

CUT TO:

SCENE 10.

ECU. GRAPEFRUIT COLLECTED IN OPENED SHIPPING CONTAINER.

CUT TO:

SCENE 11.

ECU. PURE WHITE CAULIFLOWER IN A BUSHEL BASKET.

CUT TO:

SCENE 12.

ECU. GRAY OR BEIGE MILLED GRAIN, IN PROCESSING PRIOR TO PACKAGING.

CUT TO:

SCENE 13.

ECU. A LOAF OF BREAD. SEVERAL SLICES HAVE BEEN CUT FROM IT AND ARE PLACED TO ONE SIDE. A KNIFE CUTS THROUGH THE BREAD.

NARRATOR:

...The colors, indeed, of life itself.

CUT TO:

SCENE 14.

ECU. MILK COLLECTS IN A PAIL AS A COW IS MILKED. THE CAMERA BACKS AWAY TO REVEAL A CALF AT HER SIDE.

CUT TO:

SCENE 15.

A HERD OF CATTLE.

CUT TO:

SCENE 16.

BLACK ANGUS STEERS GRAZE IN A PASTURE.

CUT TO:

SCENE 17.

STEERS CLIMB A RAMP AND ENTER A RAILROAD CATTLE CAR.

Everywhere we find the dramatic evidence

of nature's color-coded secrets...

CUT TO:

SCENE 18.

STEAK ON A CHARCOAL GRILL. A FORK PICKS UP THE STEAK.

...By which life maintains and

perpetuates itself.

CUT TO:

SCENE 19.

A KNIFE CUTS INTO A ROAST AND PEELS OFF SUCCULENT PIECES OF RARE BEEF.

NARRATOR:

The color of food--and the nutrients it contains--is part of nature's mysterious, self-replenishing cycle that serves the ultimate purpose: The uninterrupted continuity of life.

CUT TO:

SCENE 20.

A SMALL BOY, SEATED AT THE FAMILY'S OUTDOOR PICNIC TABLE, TAKES UP A PIECE OF CHICKEN. HE ENJOYS HIS FOOD.

Each spring nature produces an abundance of nutrient-rich food.

CUT TO:

SCENE 21.

THE BOY'S YOUNGER SISTER TAKES UP AN EAR OF CORN. GRINNING, SHE STARTS MUNCHING ON IT.

...And each day reinforces man's responsibility to maintain continued good health and well-being.

(BG MUSIC UP TO COVER TITLES.)

SUPER TITLE OVER:

SCENE 22.

MAIN TITLE: LETTERING.

FOOD FOR THOUGHT

SCENE 23.

PRESENTS TITLE.

SCENE 24.

CREDIT TITLES.

DISSOLVE TO:

SCENE 25.

BLACKNESS. GRADUALLY, WHITE SMOKE INTRUDES ON THE SCENE. COLORED LIGHTS--FIRST WHITE, THEN RED, GREEN, BLUE--PLAY ON THE SMOKE. EACH COLOR IS EMPHASIZED THROUGH A SERIES OF QUICK DISSOLVES TO DUPLICATE THOSE OF THE OPENING SEQUENCE: YELLOW, GOLD, RED, BLUE, GREEN, ORANGE. THE ORDER OF THE COLORS IS FROM HOT TO COOL.

NARRATOR:

During all the millions of years that followed its violent birth, the solar system hurtled through space. And the earth gradually cooled.

DISSOLVE TO:

SCENE 26.

SOMBER HUES AND VAGUE OUTLINES IDENTIFY A RUGGED, BARREN TERRAIN. IN THE BACKGROUND, FAINT STARS BLINK ON IN THE PERIPHERAL BLACK AND OUTLINE THE TOPOGRAPHY OF A SECTION OF THE EARTH BEFORE LIFE BEGAN. THIS IS A DIORAMA IN MINIATURE.

SCENE 27.

THE SCENE GROWS BRIGHTER AS A SERIES OF QUICK DISSOLVES GIVES THE IMPRESSION OF A RETURNING SPACE VEHICLE. THE EARTH'S TERRAIN IS SEEN IN GREATER DETAIL; A BODY OF WATER APPEARS AS WE MOVE IN TIGHTER. AT THE WATER'S EDGE, A TINY LIGHT APPEARS. IT SPARKLES LIKE A DIAMOND.

One day, the circumstances that stimulate life on earth were just exactly right. From inorganic matter sprung the first seed of organic life itself.

DISSOLVE TO:

SCENE 28.

VIEW OF THE EARTH IS ENCLOUDED IN SMOKE UPON WHICH COLORED LIGHTS PLAY AS IN SCENE 25.

NARRATOR:

More and more organic matter came into being--only to perish just as quickly. A constant cycle of creation and destruction continued for thousands and thousands of centuries.

DISSOLVE TO:

SCENE 29.

THE CLOUDS OF SMOKE SEPARATE AS PATCHWORK BLOCKS OF COLOR BLAZE FROM THE EARTH.

Finally, one day, life took hold. It found the food essential to sustain and perpetuate itself. Life is here to stay.

SCENE 30.

LIGHTS ALONG THE COAST OF THE WATER FADE IN AND OUT IN RAPID SUCCESSION. BUT MORE AND MORE OF THEM PERSIST AND GLOW CONSTANTLY. THE CAMERA DOLLIES IN ON ONE OF THEM. THE LIGHT SLOWLY ENVELOPES THE SCREEN. THE EFFECT IS THAT OF A MANY-FACETED DIAMOND.

(SOUNDTRACK: THE ETHEREAL TONES OF MUSIC BECOME A SIMPLE MELODY AS THE MUSIC BUILDS FROM THIS POINT UNTIL THE START OF MAN'S STRUGGLE FOR SURVIVAL IN A HOSTILE WORLD.)

CUT TO:

SCENE 31.

PHOTOMICROGRAPHY SEQUENCE FOLLOWS THE MOVEMENTS OF THE MOST BASIC PLANT ANIMAL, A FLAGELLATE.

DISSOLVE TO:

SCENE 32.

ARTWORK OR PHOTOMICROGRAPHY. THIS DESCRIPTION IS SUBJECT TO CHANGE. MORE COMPLEX MARINE LIFE. A LICHEN AFFIXES ITSELF TO A ROCK AND FINALLY A SMALL FISH-LIKE VERTEBRATE, SUCH AS A TADPOLE, APPEARS. IT CRAWLS OUT OF THE WATER AND SLITHERS INTO THE MUD OF THE SHORE.

NARRATOR:

As ages pass to ages, the conditions of life gradually change. The first living beings accommodate to the existing food supply in the continuing struggle for survival.

CUT TO:

SCENE 33.

STILL LIFE DRAWINGS IN RAPID SEQUENCE OR LIMITED ANIMATION OF A DINOSAUR; A BRONTOSAURUS.

Many prehistoric animals failed to cope with changing conditions...

SCENE 34.

STILL LIFE DRAWINGS IN RAPID SEQUENCE OR ANIMATION OF MAMMOTHS.

...Unable to find food, they perished.

CUT TO:

SCENE 35.

A PACK OF WILD HORSES RACE ACROSS THE WESTERN PLAINS; OR A PACK OF WOLVES ARE SEEN IN THEIR NATURAL HABITAT. THEN A COCKROACH.

Other species were so adaptable that for hundreds of thousands of years, they have scarcely changed at all.

CUT TO:

SCENE 36.

RAPID SEQUENCE STILLS OF FOSSILS OR PRIMITIVE DRAWINGS BY CAVEMEN OF PREHISTORIC ANIMALS.

NARRATOR:

To continue living, all beings adapt to change. When the balance of nature is altered, living creatures must change... or perish. Then, as now, food controlled life.

DISSOLVE TO:

SCENE 37.

A DIORAMA OF A PRIMEVAL FOREST FROM THE EARLY PLEISTOCENE PERIOD. PLANT AND ANIMAL LIFE OF THE PERIOD ARE REPRESENTED INCLUDING THREE OR FOUR MAN-LIKE APES GROUPED IN A GASSY OPEN SPACE ON THE GROUND.

After more than two billion years, new creatures appear. The most venturesome of them is an ape-like animal...

SCENE 38.

A DIORAMA DEPICTS A GROUP OF CAVEMEN SHOWN ON THE HUNT FOR FOOD.

...Who leaves the comparative safety of the trees to forage on the ground where food is more plentiful.

SCENE 39.

DIORAMA DEPICTS A GROUP OF CAVEMEN FASHIONING TOOLS AND HUNTING WEAPONS.

He learns to walk erect, to fashion crude tools for protection and for hunting.

SCENE 40.

DIORAMA DEPICTS CAVEMEN EATING.

NARRATOR:

He eats what food he can find. He forges when it's plentiful--and starves when it is scarce.

CUT TO:

SCENE 41.

LIMITED ANIMATION. A GROUP OF EARLY FARMERS HARVEST GRAIN IN THE BACKGROUND WHILE WOMEN MILL IT IN THE FOREGROUND.

This tenuous balance of feast and famine continues for millions of years, until man learns to control food instead of hunting for it.

SCENE 42.

LIMITED ANIMATION CLOSE-UP OF EARLY WOMEN MILLING GRAIN.

He plants wild seeds and tames wild animals. Modern civilization--and commerce--are born...based upon agriculture.

SEQUENCE 43.

LIMITED ANIMATION OF FARMERS WORKING IN THE FIELD. THROUGH A SERIES OF RAPID DISSOLVES, THE GRADUAL IMPROVEMENT OF FARMING METHODS IS DEPICTED; MECHANIZATION GRADUALLY INCREASES PRODUCTIVITY WHILE THE NUMBER OF PEOPLE WORKING IN THE FIELDS SLOWLY DECLINES.

(SOUNDTRACK: THE ORIGINAL SCORE IS BASED ON EARLY 19TH CENTURY FOLK TUNES, SUCH AS SHENANDOAH, JOHNSON'S OLD GREY MARE, ETC.)

DISSOLVE TO:

SEQUENCE 44.

A COMBINATION OF 19TH CENTURY FARMING SCENES AND PHOTOGRAPHS OF FARM IMPLEMENTS BEGINS A DRAMATIC PICTURE RHYTHM SEQUENCE THAT CONVEYS THE FEELING OF THE DRUDGERY OF LIFE IN THE COUNTRY DURING THE FIRST HALF OF THE 19TH CENTURY.

NARRATOR:

Almost overnight, the industrial revolution

sweeps aside ancient farming methods.

(THE MUSIC SEQUES BRIEFLY TO SOME CIVIL WAR TUNES AND THEN INTO MELODIES OF WAGON TRAINS, RAILROADING, AND THE COWBOY.)

DISSOLVE TO:

SEQUENCE 45.

PICTURE RHYTHM USING STILL PHOTOGRAPHS AND PAINTINGS DEPICTS THE HAND-RAKE REPLACING THE HORSE-DRAWN HAYRACK; THE HAND-SICKLE DISSOLVES INTO THE McCORMICK REAPER, ETC. THE FAMILY CHORES OF MILKING, MILK SEPARATING, CHURNING, AND SLAUGHTERING GIVE WAY TO THE EARLY COMMUNITY DAIRY, FLOUR MILL, SUGAR REFINERY, AND MEAT-PACKING HOUSE.

Individual productivity leaps ...

two! ... five! ... thirty times!

DISSOLVE TO:

SEQUENCE 46.

FINISHED ART, OR STILL PHOTOGRAPHS IN RAPID SEQUENCE: HOME CANNING METHODS: A CRACKER BARREL, PICKLES, CANNED FOODS, SAUERKRAUT, AND OTHER ITEMS THAT MIGHT BE FOUND IN A 19TH CENTURY PANTRY.

DISSOLVE TO:

SCENE 47.

ON AN ANIMATION STAND, THE CAMERA CAPTURES THE EXCITEMENT OF EDITORIAL FOOD PAGES FROM WOMEN'S SERVICE MAGAZINE AND DEMONSTRATES THE EVOLUTION OF PRESERVATION METHODS AT THE TURN OF THE CENTURY.

Industrial technology not only revolu-

tionizes the farm, it also changes our

ways of preserving and preparing food.

CUT TO:

SCENE 48.

AN UNATTENDED MODERN MILKING MACHINE IS SUPERIMPOSED OVER STILL PHOTOGRAPH OF MILKING METHOD 50 YEARS AGO.

CUT TO:

SCENE 49.

THE LATEST MODEL McCORMICK REAPER WHICH OPERATES OFF THE BACK OF A TRACTOR IS SUPERIMPOSED OVER STILL PHOTOGRAPH OF SEVERAL WORKERS BUNDLING HAY IN THE FIELDS.

CUT TO:

SCENE 50.

PRODUCTION LINE MANUFACTURING AND PACKAGING MACHINERY PRODUCING BUTTER IS SUPERIMPOSED OVER STILL PHOTOGRAPH OF WOMAN CHURNING BUTTER.

DISSOLVE TO:

SEQUENCE 51.

SPREADS OF WOMEN'S SERVICE MAGAZINE PAGES FROM THE 20'S THROUGH THE 30'S, 40'S, TO THE PRESENT.

CUT TO:

SCENE 52.

AGAINST A FERRO-TYPE BACKGROUND OF A TURN-OF-THE-CENTURY WOMAN, WHO IS PEELING POTATOES, A MODERN HOUSEWIFE POURS A PACKAGE OF INSTANT POTATOES FROM A BOX INTO A MIXING BOWL.

NARRATOR:

In this land of plenty, fewer people produce more food for more people than ever before. Today, the American farmer feeds himself and thirty other persons.

CUT TO:

SCENE 53.

INDIAN FARMER PLOWS HIS FIELD WITH DRAFT ANIMALS. IT IS FULL OF WATER, AND HE IS POORLY DRESSED.

NARRATOR:

But in most of the world, people still struggle to feed themselves...or possibly their families as well.

CUT TO:

SCENE 54.

JAPANESE FARMERS SET RICE PLANTS INTO THE EARTH.

Although man has made impressive progress against starvation, two thirds of the world's population still suffers from malnutrition.

CUT TO:

SCENE 55.

STREET SCENE IN INDIA. SMALL FAMILY GROUP SITS IN FRONT OF THEIR HOME AND EATS A VERY BASIC MEAL. AN OX-DRAWN CART SLOWLY AMBLES BY.

Although malnutrition is common in the rest of the world...poor eating habits are also widespread in the more affluent nations as well.

CUT TO:

SEQUENCE 56.

ECU. AN APACHE RED SPORTS CAR, HOT ROD, OR SLEEK, LONG CONVERTIBLE ZOOMS INTO A SERVICE STATION AND PULLS UP TO THE ENTRANCE TO THE GREASE PIT. BOY, ABOUT 21, IS DRESSED IN PLAID BERMUDA SHORTS, KNIT T-SHIRT, WHITE SOCKS, JIVES HIS WAY AROUND FRONT OF CAR IN RHYTHM TO MUSIC. HE TOSSES OFF CAREFREE GREETING TO ATTENDANT AND SWINGS INTO FLOURISH THAT ENDS WITH HIS OPENING DOOR FOR BRONZED, SUNNY-FACED GIRL.

(MUSIC: ROCK AND ROLL. THE VOLUME INCREASES AS THE CAR PULLS UP.)

SCENE 57.

EAGER ATTENDANT COMES OVER AND THEY FORM HUDDLE AS THE BOY PICKS UP THE HOOD TO HIS CAR. BOY STARTS TALKING EARNESTLY TO ATTENDANT AS GIRL LISTENS ATTENTIVELY, THOUGH SHE DOESN'T UNDERSTAND WHAT THEY ARE TALKING ABOUT. AT FIRST, THEY CANNOT BE HEARD FOR THE NOISE OF THE RADIO. GIRL GOES AROUND TO DASHBOARD AND TURNS OFF THE CAR RADIO.

SEQUENCE 58.

ECU. THE BOY'S PROFILE IS ON THE LEFT, ATTENDANT IS ON THE RIGHT, AND THE GIRL IS IN THE CENTER FACING CAMERA. BOY GIVES INSTRUCTIONS WITH EMOTIONAL INTENSITY OF LIEUTENANT INSTRUCTING HIS FIRST SERGEANT. ATTENDANT LISTENS EAGERLY. GIRL, HANGING ON EVERY WORD, NODS IN UNISON WITH ATTENDANT BUT SAYS NOTHING. THIS IS NOT IN TRUE SYNC, BUT IS SPEEDED UP AS AMBIENT SOUND, AS IF OVERHEARD IN THE NEXT ROOM.

MAN'S VOICE:

Now, Charley, I want you to pull the engine, new main bearings...

CHARLEY:

Check!

MAN:

Better get stainless and fit them to a minimum point-oh-two-oh--plus or minus point oh-one.

CHARLEY:

Check!

MAN:

If the journals need a few turns, take them down.

CHARLEY:

Check!

MAN:

Also the valves and cam.

CHARLEY:

Check!

MAN:

When you drop her back in, check out that rear cork seal...

CHARLEY:

Check!

GIRL: (Whining)

Boo-Boo, I'm hungry.

CHARLEY:

Check!

SCENE 59.

MEDIUM SHOT. THE TRIO BREAKS UP; AS CHARLEY GINGERLY LOWERS THE HOOD OF THE CAR, THE BOY AND GIRL HEAD FOR THE VENDING MACHINES. THEY START DROPPING DIMES INTO THEM.

CUT TO:

SCENE 60.

ECU. FACE ONLY OF BOY AND GIRL AS THEY STARE BLANKLY INTO THE CAMERA. THEY MUNCH ON THEIR CANDY AND COOKIES AND WASH IT DOWN WITH AN OCCASIONAL SLUG OF POP.

SCENE 61.

BOY AND GIRL TURN SLOWLY TO FACE EACH OTHER. GRADUALLY, A WIDE SMILE BREAKS ACROSS THEIR FACES.

CUT TO:

SCENE 62.

CANDID PHOTOGRAPHY AT A WELL-APPOINTED EMPLOYEE CAFETERIA. AFTER AN ESTABLISHING SHOT, THE HAND HELD CAMERA FOLLOWS ONE GIRL DOWN THE LINE AND ZEROES IN ON HER CHOICES FOR LUNCH. FIRST, SHE PICKS UP A SALAD, THEN PUTS IT BACK. INSTEAD, SHE SELECTS A CELLOPHANE PACKAGE OF CRACKERS. SHE ALSO PICKS OUT A GLASS OF ICED TEA OR A CUP OF COFFEE. THE FIRST PERSON CAMERA FOLLOWS HER ALONG THE CAFETERIA LINE AND PAUSES NOW AND THEN AS SHE BRIEFLY CONSIDERS ALOUD WHETHER TO CHOOSE THIS DISH OR THAT. MEANWHILE, THE NARRATIVE DETAILS WHY SHE DOESN'T CHOOSE THIS OR THAT ITEM. THE FIRST GROUP IS FRUIT JUICES.

SECRETARY: (Whispered voice of her conscience)

Let's see, now, I had juice and coffee

for breakfast. No juice.

SCENE 63.

SALADS. CAMERA ZEROES IN ON VARIOUS DISHES. SECRETARY HESITATES OVER SEVERAL OF THEM AND FINALLY MOVES ON.

Salad? I'm tired of salad.

SCENE 64.

IN RHYTHMIC MOTION, CAMERA PANS OVER MEAT DISHES: SPAGHETTI: HAMBURGER PATTIES WITH RICE AND ONIONS.

No...none of that fattening stuff.

SCENE 65.

IN RHYTHMIC MOTION, CAMERA PANS OVER THE VEGETABLES.

SECRETARY:

Can't stand vegetables. Ugh!

SCENE 66.

CAMERA LINGERS INVITINGLY OVER THE DESSERT SECTION. SHE TAKES A PIECE OF PIE.

No resistance. Oh, well.

SCENE 67.

CAMERA FALLS TO THE COFFEE AND TEA URNS. SECRETARY PICKS UP A GLASS OF TEA.

Iced tea. It's hot today.

SCENE 68.

CAMERA PULLS BACK FROM THE CAFETERIA LINE FOR A LONG SHOT AS SECRETARIES CONTINUE TO MOVE THROUGH THE LINE AND PAY FOR THEIR FOOD. MOST OF THE LUNCHES ARE EXTREMELY SPARSE.

NARRATOR:

But pie and tea alone won't keep her

going for the rest of the day.

CUT TO:

SCENE 69.

TWO CHILDREN, A 7 YEAR OLD GIRL AND A BOY AGED 9, RESPECTIVELY, PLAY ON THE SIDEWALK OF A SUBURBAN RESIDENTIAL AREA. THEY ARE PUSHING A WAGON.

Depending on our sex and age, each of

us has different dietary requirements

for the basic proteins, carbohydrates,

and vitamins.

SCENE 70.

ECU. THE 9-YEAR-OLD BOY PUSHES THE WAGON WHILE THE GIRL RIDES INSIDE.

NARRATOR:

For instance, this nine-year-old boy should have over two ounces of protein every day, which can be supplied with about a third of a pound of meat...

PAN TO:

SCENE 71.

ECU OF THE LITTLE GIRL, STEERING THE WAGON.

...While his seven-year-old sister only needs a quarter of a pound of meat to supply the 1.8 ounces of protein she requires.

CUT TO:

SCENE 72.

A BASEBALL DIAMOND. THE LITTLE GIRL IS CHEERING HER BROTHER WHO HAS JUST HIT THE BALL AND IS RUNNING TOWARD FIRST BASE. THE HAND-HELD CAMERA PANS ACTION OF FIELDERS CHASING DOWN THE BALL, RE-TRIEVING IT, AND RELAYING IT BACK TO THE INFIELD. THE LITTLE BOY SLIDES INTO SECOND BASE. THE UMPIRE, ONE OF THE FATHERS, CALLS HIM OUT. A COMMOTION ENSUES AS THREE OR FOUR TEAMMATES CONTEST THE DECISION.

On the other hand, because their father expends more energy, he requires a total of some 2600 calories a day...

CUT TO:

SCENE 73.

AN OLDER BROTHER, AGE 18, AND HIS DATE, THE SAME AGE, CHEER FROM THE SIDELINES.

NARRATOR:

...And their older brother--a teenager--
needs more protein and less calories
proportionately.

SCENE 74.

AN OLDER COUPLE, REPRESENTING THE CHILDREN'S GRANDPARENTS, CHATTER AND CHEER THE EVENTS OCCURRING ON THE BASEBALL DIAMOND.

Grandma, being over 70 years of age,
needs only 1600 calories for energy,
and Grandpa, who is retired, takes
2200 calories.

CUT TO:

SCENE 75.

SMALL BABY IN HER MOTHER'S ARMS.

Mother normally should have about
1900 calories per day...and the
latest addition to the family, age
3, needs 1300 calories.

CUT TO:

SCENE 76.

CAMERA PULLS BACK FOR AN OVERALL VIEW OF THE STADIUM AND FREEZES FRAME TO COVER ALL THE PREVIOUSLY REPRESENTED AGE GROUPS WHO ARE SEEN IN THE STANDS.

NARRATOR:

Fitting calorie consumption to age and activity is the only way to control weight. This is true not only for total calorie consumption, but also for all the other nutrients essential to good health.

DISSOLVE TO:

SEQUENCE 77.

LIMITED ANIMATION. STYLIZED REPRESENTATIONS OF THE FOUR FOOD GROUPS APPEAR IN A SERIES OF POP-ONS: FIRST, THE DAIRY FOODS, THEN THE MEAT GROUP, FOLLOWED BY VEGETABLES AND FRUITS, AND THEN BREADS AND CEREALS.

Nobody can remember all the specific requirements of each nutrient, but good nutrition is available through a balanced diet ... a diet selected from four basic food groups which, between them, supply all the nutrients for every person of every age.

POP-ON

SCENE 78.

HIGHLIGHT STYLIZED REPRESENTATION OF THE MEAT GROUP, LABELED ACCORDINGLY.

NARRATOR:

The meat group...

POP-ON

SCENE 79.

HIGHLIGHT STYLIZED REPRESENTATION OF THE DAIRY GROUP.

...The dairy group...

POP-ON

SCENE 80.

STYLIZED REPRESENTATIONS OF VEGETABLES AND FRUITS.

...Vegetables and fruits...

POP-ON

SCENE 81.

STYLIZED REPRESENTATIONS OF BREAD AND CEREALS.

...And breads and cereals, properly complementing each other, will supply the minimum recommended nutritional allowances that maintain body health and well-being.

CUT TO:

SCENE 82.

A BUSY INTERSECTION IN A SMALL MIDWESTERN CITY. CAMERA DOLLIES IN ON PEOPLE STANDING ON THE CORNER AND CROSSING THE STREET.

NARRATOR:

Americans could take full advantage of their abundance ... But they don't!

SCENE 83.

CAMERA PANS ALONG THE BUSY STREET, PICKING OUT VARIOUS SIZES AND SHAPES OF PEOPLE. IT STOPS IN FRONT OF A SUPERMARKET, AND STARTS TO MOVE THROUGH THE DOOR.

About one fourth of all Americans are overweight...weighing twenty per cent more than we should. Overweight people fail to equate their appetites with the recommended dietary allowance.

SCENE 84.

IN THE SUPERMARKET, THE CAMERA PICKS UP A MOTHER WITH HER PRE-SCHOOL CHILD PROPPED IN THE SEAT OF HER SHOPPING CART.

Ideally, everybody, of every age, could benefit from the interaction of the nutrients found in these food groups.

SCENE 85.

MOTHER REACHES DOWN INTO THE DAIRY FOODS FREEZER AND BRINGS UP A QUART OF MILK, A PIECE OF CHEESE, SOME ICE CREAM. A SCHOOL-AGE CHILD JOINS THEM, AND THE MOTHER STARTS TO PASS THE DAIRY PRODUCTS AROUND AMONG THE BASKETS. GRANDMA JOINS THEM IN ORDER TO OBSERVE THE PROCEEDINGS.

NARRATOR:

The nutrients in dairy foods--milk, cheese, and ice cream--work with nutrients in other foods to help insure strong bones and healthy teeth. They build and repair tissues, promote growth, provide energy, and keep the muscles active. Everyone should have some form of dairy products every day.

CUT TO:

SCENE 86.

AN ADOLESCENT BOY AND GIRL JOIN THE OTHERS AS THEY MOVE DOWN THE SUPERMARKET AISLE INTO A LIMBO SETTING WHERE FRESH VEGETABLES AND FRUITS ARE SUSPENDED FROM STYLIZED TREES, VINES, AND PLANTS. CANNED FRUITS AND VEGETABLES, FROZEN FOODS, DRIED FRUITS ARE ALSO DISPLAYED IN THE SAME MANNER.

SCENE 87.

THE CAMERA FOLLOWS THE ADOLESCENT BOY AND GIRL, THE YOUNGER CHILD AND THE OCTAGENARIAN, AS THEY MOVE THROUGH THIS LIMBO OF FOOD WITH THE EXCITEMENT OF DISCOVERY, PLAY, AWE, FANCY, AND DELIGHT--EMOTIONS THAT ARE REFLECTED IN THEIR FACES AND THE SKIPPING THEY OCCASIONALLY BREAK INTO.

Nutrients found in fruits and vegetables help to keep the skin healthy. They maintain normal eyesight and provide the cementing material that holds body cells together. Everyone should have four or more servings of vegetables and fruit each day.

SCENE 88.

AS THEY MOVE THROUGH THE LIMBO, THE BACKGROUND SHIFTS AGAIN INTO A STYLIZED BREAD AND CEREALS SECTION OF A SUPERMARKET. THEY ARE JOINED BY A YOUNG COUPLE, AS ONE OF THEM MOVES DOWN THE AISLE AND BRINGS FORTH ROLLS, BREADS, CAKE MIXES, FLOUR, AND SUCH FOR THE APPROVAL OF THE OTHERS.

NARRATOR:

Many important nutrients are found in bread and cereal. Most white breads are now enriched, which means that extra iron and B-vitamins are added. The interaction of nutrients in breads and cereals with those in the other food groups help to promote growth and build body tissue. They also provide energy. Most people need four or more servings of bread and cereals daily.

SCENE 89.

THE MOTHER AND PRE-SCHOOL CHILD JOIN THE YOUNG COUPLE AND THE GRANDMOTHER. SHE PICKS UP EGGS, CHICKENS, MEAT, AND FISH, WHILE THE COUPLE PICKS OUT DRIED PEAS AND BEANS. THEY STACK THEM ALL TOGETHER IN STYLIZED, TABLE-TOP PHOTOGRAPHY.

Different varieties of dried beans and peas, meat, fish, poultry, and eggs supply other nutrients that help build strong and agile muscles, and make healthy blood and body tissues. Nutrients in this meat group help promote growth and supply energy. Everyone should have two or more servings every day of at least from two to eight ounces... depending upon the recommended dietary allowances for each age and also depending upon body structure and the kind of work you do.

SCENE 90.

IN RAPID SEQUENCE, A REVIEW MONTAGE FADES IN AND DISSOLVES OUT OF THE YOUNG CHILDREN, THE YOUNG ADULTS, THE OLDER COUPLE, AND FINALLY, THE PRE-SCHOOL CHILD.

NARRATOR:

Different foods in each group supply different nutrients. And, of course, there is great overlapping of nutrients supplied. But each food groups makes special contributions to health and well-being and they all interact harmoniously to supply a well-balanced diet.

CUT TO:

SCENE 91.

VIEW OF NUTRITIONAL RESEARCH LABORATORY.

Research in nutritional science continues to add to the information and knowledge which we already have about food and health.

CUT TO:

SCENE 92.

SCIENTISTS CHECK GROWTH OF EXPERIMENTAL ANIMALS. THE CAGE OF THE RATS THEY ARE OBSERVING IS MARKED ACCORDING TO A VITAMIN DEFICIENCY.

The objective of this work is to learn more about how the nutrients in various foods act upon the body...and this work has great implications for the health of the people of the world.

CUT TO:

SCENE 93.

RESEARCHER WORKS WITH VAST ARRAY OF CHEMICAL PROCESSING EQUIPMENT.

NARRATOR:

But knowledge of nutrition is one thing.

Applying that knowledge is an entirely

different matter.

CUT TO:

SCENE 94.

RESEARCHER STUDIES BLOOD CELL THROUGH MICROSCOPE.

Knowledge can improve the mind, but it

can never help the body, unless it is

put into practice.

CUT TO:

SCENE 95.

PHOTOMICROGRAPHY OF BLOOD FLOWING THROUGH BLOOD VESSELS OF THE BODY.

The scientific method can increase our

body of information...

DISSOLVE TO:

SCENE 96.

BLOOD CELL DISSOLVES SLOWLY INTO ECU OF HARRIED BUSINESSMAN EATING SANDWICH, PIE, AND COFFEE AT DESK, TOSSING IT AWAY HALF EATEN.

...But the scientific method cannot

change the pace of our intense and

nervous society.

SCENE 97.

SECRETARY GOING THROUGH CAFETERIA LINE.

NARRATOR:

The dietitian can make out a fine menu,
but she cannot accompany us down the
cafeteria line...

SCENE 98.

EXECUTIVE GULPING COFFEE AT BREAKFAST, RUSHING OUT, DANISH IN HAND.

...The biochemist cannot force us to
have a good breakfast...

SCENE 99.

CONSTRUCTION WORKER OPENING LUNCHBOX ON JOB.

...The nutritionist cannot pack our
lunchbox every day...

SCENE 100.

ELEGANT RESTAURANT, ATTENTIVE HEADWAITER AND BUSBOY.
COUPLE OUT FOR EVENING, GIVING ORDER FROM HUGE MENU.

...And the scientist cannot look over
our shoulder and make suggestions from
the menu which are best for health.

SEQUENCE 101.

HECTIC SERIES OF NERVOUS INTENSITY IN DAILY LIVING.

NARRATOR:

Our daily lives are scenes of sound and fury...but the basic decisions are up to each of us individually.

SHARP JUMP CUT TO:

SCENE 102.

HOUSEWIFE MAKING SELECTIONS IN SUPERMARKET, USING LIST.

(MUSIC UP TO COVER.)

SCENE 103.

SUPER END TITLES OVER SUPERMARKET SCENE.

RECOMMENDED DAILY DIETARY ALLOWANCES[1], REVISED 1963

Designed for the maintenance of good nutrition of practically all healthy persons in the U.S.A.

(Allowances are intended for persons normally active in a temperate climate)

	Age[2] years	Weight kg.(lbs)	Height cm.(in.)	Calo-[3] ries	Pro-tein gm.	Cal-cium gm.	Iron mg.	Vita-min A I.U.	Thia-mine mg.	Ribo-flavin mg.	Equiv.[4] Niacin mg.	Ascor-bic Acid mg.	Vita-min D I.U.
Men	18-35	70(154)	175(69)	2900	70	0.8	10	5000	1.2	1.7	19	70	
	35-55	70(154)	175(69)	2600	70	0.8	10	5000	1.0	1.6	17	70	
	55-75	70(154)	175(69)	2200	70	0.8	10	5000	0.9	1.3	15	70	
Women	18-35	58(128)	163(64)	2100	58	0.8	15	5000	0.8	1.3	14	70	
	35-55	58(128)	163(64)	1900	58	0.8	15	5000	0.8	1.2	13	70	
	55-75	58(128)	163(64)	1600	58	0.8	10	5000	0.8	1.2	13	70	
	Pregnant(2nd & 3rd trimester)			+200	+20	+0.5	+5	+1000	+0.2	+0.3	+3	+30	400
	Lactating			+1000	+40	+0.5	+5	+3000	+0.4	+0.6	+7	+30	400
Infants[5]	0-1	8 (18)		kgx115 ±15	kgx2.5 ±0.5	0.7	kgx1.0	1500	0.4	0.6	6	30	400
Children	1-3	13 (29)	87(34)	1300	32	0.8	8	2000	0.5	0.8	9	40	400
	3-6	18 (40)	107(42)	1600	40	0.8	10	2500	0.6	1.0	11	50	400
	6-9	24 (53)	124(49)	2100	52	0.8	12	3500	0.8	1.3	14	60	400
Boys	9-12	33 (72)	140(55)	2400	60	1.1	15	4500	1.0	1.4	16	70	400
	12-15	45 (98)	156(61)	3000	75	1.4	15	5000	1.2	1.8	20	80	400
	15-18	61(134)	172(68)	3400	85	1.4	15	5000	1.4	2.0	22	80	400
Girls	9-12	33 (72)	140(55)	2200	55	1.1	15	4500	0.9	1.3	15	80	400
	12-15	47(103)	158(62)	2500	62	1.3	15	5000	1.0	1.5	17	80	400
	15-18	53(117)	163(64)	2300	58	1.3	15	5000	0.9	1.3	15	70	400

[1]The allowance levels are intended to cover individual variations among most normal persons as they live in the United States under usual environmental stresses. The recommended allowances can be attained with a variety of common foods, providing other nutrients for which human requirements have been less well defined. See text for more detailed discussion of allowances and of nutrients not tabulated.

[2]Entries on lines for age range 18-35 years represent the 25-year age. All other entries represent allowances for the midpoint of the specified age periods, i.e., line for children 1-3 is for age 2 years (24 months); 3-6 is for age 4-1/2 (54 months), etc.

[3]Tables 1 and 2 and figures 1 and 2 in text show calorie adjustments for weight and age.

[4]Niacin equivalents include dietary sources of the preformed vitamin and the precursor, tryptophan. 60 mg tryptophan represents 1 mg niacin.

[5]The calorie and protein allowances per kg for infants are considered to decrease progressively from birth. Allowances for calcium, thiamine, riboflavin, and niacin increase proportionately with calories to the maximum values shown.

August 13, 1964

Miss Lorraine Weng
Department of Materials Development
National Dairy Council
111 North Canal Street
Chicago, Illinois

Dear Miss Weng:

I enjoyed the meeting yesterday with the consultants who are planning for the new film, "Food for Thought." It seems to me that plans are now near final and I feel that this could work out to be a most effective film. Please let me know if I can assist in any other way.

Attached is the report of my travel expense.

Very sincerely yours,

Robert E. Shank, M. D.

National Dairy Council Weekly Expense Statement

Name Dr. Robert E. Shank

Trip to Chicago, Illinois *Dates* August 12, 1964

Explain purpose of trip, and list persons or organizations visited in compliance with Internal Revenue Service requirements.

To attend meeting of consultants in planning for the new film, "Food for Thought".

Date	Plane, Train, Bus, Car	Hotel or Motel	Meals & Tip	Taxi, Limo, etc. (local)	Other Tips	Telephone Teleg. & Postage	Misc., Laundry & Valet	EXPLANATION	
8/12/64	$37.73		B L $3.50	$15.90	$2.55			Taxi-home to St.Louis Airport	4.00
			D					Limousine O'Hare to Chicago Loop	2.00
			B L D					Taxi to 111 N. Canal St.	.70
			B L D					Taxi - 111 Canal St. to O'Hare	5.00
			B L D					Taxi-St.Louis Airport to home	4.20
			B L D						$15.90
			B L D						
			B L D						
			B L D						
Totals	$37.73	-	$ 3.50	$15.90	$2.55			Signed	Date 8/12/6

SUMMARY		BUDGET ACCOUNT	AMOUNT	APPROVED BY
Total Expenses	$ 59.68	No.	$	
Less: Advances	$	No.	$	
Due Employee	$	No.	$	
Due NDC	$	No.	$	

FOR ACCOUNTING USE ONLY

Total Expenses $

Advances

Due Employee $

NAME DATES

Budget Account	Amount	Explanation
No.	$	
No.	$	
No.	$	
No.	$	

Approved

2M 1/64

INSTRUCTIONS ON PREPARATION OF EXPENSE STATEMENT

To comply with the Internal Revenue Service, any expenditure of $25.00 or more will require a receipt or other documentary evidence. All entertainment or business meals must list "How much, when, where, why and for whom."

GENERAL

Complete top of sheet giving your name, destination, dates, purpose of trip, and people visited. It is suggested you keep a memo book in which to enter your expenses as they are incurred. Each trip's expenses should be submitted separately. Where more than one sheet is necessary, carry totals forward to the next sheet.

If you have a standing advance, you will be reimbursed for the full amount of the itemized expenses. If you do not have a standing advance but have secured a special trip advance, there will be an adjustment check, from NDC if your expenses exceed the advance, or from you when statement is submitted, if the advance exceeds the expenses. Wherever possible, receipts should be obtained to support the expense items. This is a requirement in the case of hotel bills and large payments.

Indicate the account number or numbers to be charged. Route to accountable Department Heads before submitting to the Chief Accountant who is responsible for NDC budgetary control. Expense statements of Department Heads and Assistants will be audited by the Division Coordinator, and Division Coordinator expense statements by the President.

NDC employee expense accounts are paid from industry funds, and NDC is subject to possible criticism for excessive expenditures.

Expenses need to be charged to accounting period in which incurred. Submit expense statements within 10 days of completion of trip.

PLANE, TRAIN OR BUS AND CAR RENTAL (intercity travel)

Attach all receipts for out-of-town travel, and list as "advances" transportation secured on travel cards or purchased by NDC.

Purchase travel insurance on a round trip basis so that one payment will cover the entire trip.

When authorized to use your own car an allowance of 8 cents a mile will be allowed. Unless you have submitted a certificate from your insurance company protecting NDC from liability, no reimbursement will be allowed. Mileage allowance covers all expenses of operation. Report toll highway, bridge charges, garage and parking fees, separately.

HOTEL OR MOTEL

Itemize hotel bills for each day. List room charge and tax in the hotel column. List other items in their appropriate column. Indicate on the hotel bill all personal items, but do not list on expense statement for reimbursement.

MEALS (include tips)

Explain, if for others than yourself, and identify guests. Include meal tips as a part of cost of meal. Charge meals eaten in hotel where registered to hotel bill.

TAXI & LIMO. (local transportation)

List taxis, airport limousines, streetcars, buses, subways, etc., including tips, giving origin and destination.

OTHER TIPS

Gratuities are permitted for special services but should not exceed amounts which are customary or appropriate for services requested. These include housemen, bell boys, workmen, electricians, etc.

TELEPHONE AND TELEGRAPH, LAUNDRY AND VALET, AND MISCELLANEOUS

List with explanation incidental expenditures incurred on NDC business such as telegrams, telephone calls, and postage. Pressing and laundry approved only on extended trips of three days or longer. List with explanation expenses incurred for necessary entertainment. These should be infrequent, moderate, and such as not to subject NDC to possible criticism in its handling of industry funds.

August 1, 1964

Miss Lorraine Weng
Department of MaterialseDevelopment
National Dairy Council
111 North Canal Street
Chicago, Illinois 60606

Dear Miss Weng:

I have received your letter and will plan to attend the next meeting for planning of the film on August 12.

Very sincerely,

Robert E. Shank, M.D.

National Dairy Council

111 NORTH CANAL STREET · CHICAGO, ILLINOIS 60606

AREA CODE 312 • 372-3156

July 22, 1964

Dr. Robert E. Shank
Washington University
Department of Preventive Medicine
and Public Health
660 South Euclid
Saint Louis, Missouri 63110

Dear Dr. Shank:

If my impression that you would be gone three weeks is correct, you will be returning to your office soon. Therefore, I'm sending this letter to you there.

We have been able to confirm August 12 for our next meeting on the film. We will plan to meet at 1:30 o'clock, if that is all right with you. Steve will be away but we felt that we shouldn't delay because we are getting close on time.

Sincerely,

Lorraine Weng

Lorraine Weng, Director
Department of Materials Development

LW:pk

National Dairy Council

111 NORTH CANAL STREET · CHICAGO, ILLINOIS 60606

AREA CODE 312 • 372-3156

July 10, 1964

Dr. Robert Shank
Box 351
Stony Lake
Oceana County, Michigan

Dear Dr. Shank:

We had a profitable meeting on Tuesday but we missed you. There was a common thread in the reviews and that was that the script needed more nutrition information. We spent our time discussing why and how this might be accomplished.

Stan will do another draft within the next two weeks. I will get it out just as soon as we receive it. This brings me to the next major step - selection of a date for the next meeting. Would it be possible for you to meet August 12, 13, or 14? If you wish to call me, our number is Franklin 2-3156.

I hope you are having a fine vacation.

Sincerely,

Lorraine

Lorraine Weng, Director
Department of Materials Development

LW:pk

National Dairy Council

111 NORTH CANAL STREET · CHICAGO, ILLINOIS 60606

AREA CODE 312 • 372-3156

June 30, 1964

Dr. Robert Shank
Department of Preventive Medicine
Washington University School of Medicine
St. Louis, Missouri

Dear Bob:

Again it was wonderful to see you during the recent meetings of the AMA in San Francisco. In particular I appreciated the discussion you presented during the Diet and Nutrition Conferences. I also welcomed the opportunity to discuss with you current trends in thinking with regard to the dietary fat question. You may be sure that our conversations will be kept confidential until such time as future recommendations may be made public.

I trust that, by now, you and Miss Weng have clarified a proposed date for the Film Review Committee meeting. I look forward to seeing you at that time.

In the meantime, have a very pleasant vacation and get away from the stresses of the working environment. You certainly have earned this opportunity.

Kindest personal regards.

Sincerely yours,

Merrill S. Read, Ph.D.
Director of Nutrition Research

MSR-t

National Dairy Council Weekly Expense Statement

Name Dr. Robert E. Shank

Chicago, Illinois

Dates May 19, 1964

Purpose of trip, and list persons or organizations visited in compliance with Internal Revenue Service requirements.

To attend meeting of consultants for preparation of a new nutrition education film.

Date	Plane, Train, Bus, Car	Hotel or Motel	Meals & Tip	Taxi, Limo, etc. (local)	Other Tips	Telephone Teleg. & Postage	Misc., Laundry & Valet	EXPLANATION	
5/64	$39.38		B L 3.25 D 3.50	13.00				Taxi-home to St.Louis Airport Limousine - O'Hare to Palmer House	4.50 2.00
			B L D					Limousine - Palmer House to O'Hare Taxi-St.Louis Airport to home	2.00 4.50
			B L D						$13.00
			B L D						
			B L D						
			B L D						
			B L D						
Totals	$39.38	-	$6.75	$13.00				Signed	Date 5/21/64

SUMMARY		BUDGET ACCOUNT	AMOUNT	APPROVED BY
Total Expenses	$ 59.13	No.	$	
Less: Advances	$	No.	$	
Due Employee	$	No.	$	
Due NDC	$	No.	$	

FOR ACCOUNTING USE ONLY

Total Expenses $

Advances

Due Employee $

Due NDC

NAME DATES

Budget Account	Amount	Explanation
No.	$	
No.	$	
No.	$	
No.	$	

Approved

April 2, 1964

Mr. Milton Hult
National Dairy Council
111 North Canal Street
Chicago 6, Illinois

Dear Mr. Hult:

I regret very much that it will be impossible for me to attend the reception of the National Dairy Council at the Sheraton-Blackstone Hotel in Chicago on Sunday, April 12.

The American Board of Nutrition, of which I am Secretary-Treasurer, is having its meeting and dinner on that same date. This makes it impossible for me to enjoy your hospitality.

Very sincerely yours,

Robert E. Shank, M. D.

National Dairy Council
111 NORTH CANAL STREET
CHICAGO 6, ILLINOIS

March 2, 1964

write
can't attend

Dr. Robert E. Shank
School of Medicine
Washington University
St. Louis, Missouri

Dear Dr. Shank:

On behalf of the staff of National Dairy Council, it is my pleasure to invite you to a reception on Sunday, April 12, 1964, from 5:30 to 6:30 p.m., in the Sheraton Room of the Sheraton-Blackstone Hotel, Chicago, Illinois.

Sincerely yours,

Milton Hult

Milton Hult, President

MH:mm

R.S.V.P.

Nutrition News

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FOUR ISSUES ANNUALLY—
FEBRUARY, APRIL, OCTOBER, DECEMBER

IMPLICATIONS OF FOOD COMPOSITION TABLES

by BERNICE K. WATT, Nutrition Analyst
Consumer and Food Economics
Research Division
Agricultural Research Service, USDA

The table of food composition is a reflection of progress in man's search for knowledge of substances in foods that provide energy for his health, work, recreation, and ever-increasing span of life.

In the United States the series of tables began in 1896 with U.S. Department of Agriculture Experiment Station Bulletin No. 28, *Chemical Composition of American Food Materials* compiled by W. O. Atwater and C. D. Woods. The energy-producing nutrients and the calorie value of foods comprised the greater part of these tables. Data in this Bulletin were shown as percentages of protein, fat, carbohydrate, ash, water, and refuse, in terms of maximum, minimum, average. Bulletin No. 28 was revised in 1899, again in 1906, and served as a basic work on composition of foods. Data from it were widely used in standard textbooks and laboratory manuals.

Meanwhile, research in foods and nutrition was in progress by workers singly and in groups. Within a five-year period, 1926-1931, three specialized Circulars were published: *Proximate Composition of Beef, Proximate Composition of Fresh Fruits,* and *Proximate Composition of Fresh Vegetables.*

Ten years later, in 1940, a general table, Circular 549, *Proximate Composition of American Food Materials* was published. This Circular incorporated data from the specialized studies on meat, fruit, and vegetables, and revised data from the other food groups.

During this period attention was being focused on the importance of minerals and on a group of recently discovered nutrients, the vitamins. Accordingly, the next publication in this series, Miscellaneous Publication 572, *Tables of Food Composition in Terms of Eleven Nutrients,* issued in 1945, included in addition to the data for proximate composition, data for three minerals and five vitamins. However, at that time there was still such a dearth of information on mineral and vitamin content of foods that only 275 food items were in the table. Most of these were in the raw or unprepared form. Only a few canned products and ready-to-eat items were included.

In 1950, a more comprehensive table, Agriculture Handbook No. 8, *Composition of Foods . . . raw, processed, prepared* was published. The columns of data were headed by the same constituents as those of its predecessor. But the list of foods for which data were provided was nearly three times as long, numbering 751. For the first time some frozen foods, relatively new on the market then, were included.

Now, some 13 years later, the new Revised Agriculture Handbook No. 8, *Composition of Foods . . . raw, processed, prepared* lists 2483 food items. Data are provided in the two main tables for energy (calories) and 16 components: water, protein, fat, total carbohydrate, fiber, ash; five vitamins —thiamine, riboflavin, niacin, ascorbic acid, vitamin A value; five minerals— calcium, phosphorus, iron, and newly added sodium and potassium.

Nutrients continue to be added to tables as their importance becomes recognized and analyses of their content in foods become available. An initial compilation of data on a nutrient may or may not be adequate for the main tables. In the new Handbook data for sodium and potassium were added to the main tables. Three supplementary tables were prepared to present the limited data available for the content of oleic, linoleic, and total saturated fatty acids in 422 foods; cholesterol in 35 foods; and magnesium in 444 foods. A study is now underway to collect analyses for a number of other minerals and B-vitamins.

A concept basic to progress in the preparation of tables of food composition is that values do not remain static. They must evolve with the changing times. Values of foods suitable at the time they are derived may not be appropriate at a later period.

Early tables were a simple listing of foods with their composition—often composition of a single sample or a few samples, not necessarily typical.

Foods available at the turn of the century were mainly direct products of the farm and garden. Now the source of supply for the consumer has shifted to supermarket-type stores where from 6000 to 10000 food items may be available. Most have undergone some form of treatment before they reach the shelves.

Great diversity of geographical origin and other factors makes impossible

Dr. Watt

the preparation of a composite, or representative, sample of a given food for analysis. It is necessary to bring together information on composition of different well-described samples and from the sum of information derive representative values. Present tables must provide data that show relationships between different forms of a single food and between different kinds of foods.

In our research on composition of a given food, the primary form is always studied first, for example, potato, then the products derived from it. In the new Handbook, the entry Potatoes is followed by a listing of 29 forms of this age-old product.

"Giant Strides" in preparing the tables

Three major "Strides" for preparing a new table of food composition are 1) *Assembling* the total analytical information available on foods 2) *Evaluating* the material for soundness and significance 3) *Interpreting* the data in terms most serviceable to the user of the tables.

Steps involved in assembling the data include exhaustive search for analyses of foods reported in the scientific and technical literature of the world; reference to special reports and unpublished data from laboratories of government, colleges and universities, Agricultural Experiment Stations, scientific organizations, private industry; review of all data previously published.

Many problems arise in the classification of foods. One of the most fre-

(Continued on Page Seven)

ABOUT THE AUTHOR

Dr. Watt

Dr. Watt has major responsibility for compiling and evaluating worldwide research findings on nutritive value of foods for preparation of tables of food composition. Her Food Composition Unit received the United States Department of Agriculture's award for Superior Service following the publication of Agriculture Handbook No. 8 "Composition of Foods — raw, processed, prepared," 1950. A vast revision of this Handbook is soon to be released. She is co-author of the USDA "Energy Value of Foods, Basis and Derivation," a comprehensive study of research on which calorie values of foods are based. A native of Iowa and a graduate of Iowa State University, Dr. Watt received her master's degree from Kansas State University and her doctorate at Columbia University. She has accepted government assignments as participant and consultant in nutrition programs, international in scope. She has authored numerous publications. Dr. Watt is listed in American Men of Science and in Who's Who of American Women and holds membership in several professional organizations.

DID YOU KNOW?

—that for every dollar taken in by the milk dealer for the sale of fluid milk, he earned a profit in 1961 of less than ½ cent a quart?

—that cream cheese is a soft, mild, uncured cheese made from cream or a mixture of cream and milk?

—that frozen dairy desserts on the market today include ice cream; ice cream containing egg (sold as frozen custard, French ice cream or French custard ice cream); ice milk; fruit sherbet; and water ices?

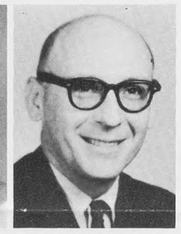
—that Federal meat inspection is financed by the Federal Government? It costs about 15 cents a year for each of us, less than a dime for every 100 pounds of meat we buy.

TOOLS AND TECHNIQUES

TEAMWORK IN NUTRITION EDUCATION

By Loma J. Taylor, Health Educator, Whitley County Health Department, Williamsburg, Kentucky and Patrick West, Jr., Principal, Oak Grove Elementary School, Corbin, Kentucky

Loma Taylor



Patrick West, Jr.

The 18 teachers of Oak Grove Elementary School in Whitley County have seen the 568 rural students, grades one through eight in this eastern Kentucky community improve their eating habits. The improvement was the direct result of a pilot demonstration nutrition education program at the school.

As the program began its second year in the fall of 1963, the rural students were asking for sweet potatoes, greens, liver, and cole slaw. They had previously rejected these in favor of the traditional corn bread and soup beans. Getting these students to change their food habits voluntarily didn't happen overnight. It required teamwork and cooperation.

The nutrition education program started in the spring of 1962. The principal of Oak Grove School realized the need for better food habits. He asked the public health nurse, who served the school and community, if the Health Department would help with a nutrition education program.

The nurse presented his request to the Whitley County health officer and the health educator. State nutrition personnel were asked to serve as consultants. The area nutrition consultant joined the nurse, health educator, and principal of Oak Grove. The Oak Grove staff was delighted with the prospective program and the help offered. They wanted the school's new lunchroom to be a tool for teaching nutrition.

School personnel helped the public health officer and two nurses conduct health and nutrition surveys on 5th and 6th graders in April 1962. Surveys included hemoglobin tests, physical examinations, height — weight measurements, and a three-day food record.

The Oak Grove School and health department staffs, the home demonstration agent, 4-H leaders, school lunchroom supervisor, and parents helped summarize the food survey.

The survey showed diets high in snack foods of candy, soft drinks but low in milk and vitamin A and vitamin C foods (fruits and vegetables). Many children were skipping meals in favor of snacks, four or more times a day.

Tests showed that 32 percent of the children had low hemoglobins. Thirty-two of the 105 children were referred to their family physicians; 29 consulted their physicians. Three moved from the county.

The area nutritionist and health educator held four planning and training meetings in October with teachers, nurses, the home demonstration agent, and the county school lunch supervisor.

Teachers formed their own committee. Soon every teacher was involved. Math classes chose figures from the survey as problems in percentages. Art classes decorated the lunchroom with posters urging students to eat more greens. Happy Plate Clubs in the lower grades, encouraged children to say "hello" to a new food by eating just one bite. Science classes were amazed to see what a difference diets made in rats experimentally fed.

Teachers noticed students failed to use the dry milk they had at home, so an outstanding 4-H girl was asked to demonstrate the use of dry-milk drinks. Other demonstrations on how to use low-cost foods soon followed as a result of popularity of the first. Even boys were included by request.

The school lunch manager made such attractive dishes from previously disliked foods that the parents requested recipes. The county home demonstration agent was especially helpful in working with families with problems.

The same children were again surveyed for food habits in 1963. Their habits showed a decided improvement—but milk intake still was low. The principal arranged for a morning "milk wagon" to visit each classroom with two-cent milk.

Changes in physical conditions due to improved food habits are difficult to measure, but talk to teachers at Oak Grove School. You feel their enthusiasm and know they feel such pride in what they have accomplished in helping children learn new food habits.

The success of this pilot nutrition education program is due to the teamwork of many agencies and their representatives. As teamwork continues to show results at Oak Grove Elementary School, plans for a similar project at Nevisdale Elementary School in Whitley County are going forward.

TEXAS TEEN-AGERS LAUNCH NUTRITION PROJECT

By Mrs. Geraldine S. Lee, County Home Demonstration Agent, Brazoria County, Angleton, Texas

A food and nutrition study conducted in a gulf coast Texas county, revealed that the teen-age girl is the poorest fed member of the family. According to the survey, teen-agers skipped breakfast, feared fat, did not drink enough milk and ate poor snacks. This did not mean that families failed to provide proper food, but for various reasons teen-age members had poor eating habits.

Concerned with the results of this survey, the Brazoria County Foods and Nutrition Subcommittee supported an idea of one of its teen-age members. The idea revolved around organizing a steering committee of outstanding boys and girls in the county's seven high schools. The steering committee would plan methods for reaching teen-agers with nutrition information and attempt to motivate them to form good eating habits. The committee would also plan county meetings on foods and nutrition for teen-agers.

Goals of the project were explained to school superintendents and/or principals by the county home demonstration agent and assistant home demonstration agent. School officials were enthusiastic about the proposed educational program. Each school selected four to six outstanding boys and girls to attend the first county teen-age steering committee meeting. The County Foods and Nutrition Subcommittee and persons in the Extension service helped lay plans for this meeting.

The first planning meeting of the teen-age steering committee attracted forty youths who represented all seven high schools and thirteen adult leaders. Teen-agers gave the welcome, purposes, made introductions, were in charge of buzz sessions. The Texas A&M University head baseball coach and a speaker from the field of nutrition spoke about the importance of good eating habits. Teen-agers aired opinions and ideas on how to achieve a successful nutrition program.

Youth decisions, supported by adults, evolved from the buzz sessions. A nutrition education program was planned. A date for the culminating program was set for three months later.

Each school was given a major responsibility in planning and carrying out programs and projects prior to the countywide meeting. Adults worked hand-in-hand with teen-agers. Physicians, school lunch supervisors, nutritionists, homemakers, classroom teachers, home economists, P.T.A. members, 4-H leaders, Home Demonstration Club members, persons at the Texas Agricultural Experiment Station and Texas A&M University Research Laboratory and members of youth clubs worked to achieve the successful program.

As a result of the unified effort, school groups staged rat feeding demonstrations that illustrated the difference between a well-balanced diet and one that was poorly balanced. Students held assemblies and room programs. Exhibits and posters publicized nutrition. Professional athletes and nutrition specialists spoke to students. Each school selected its own Mr. and Miss Physical Fitness through contests.

At the end of three months, one of the high schools played host for the culminating program. The program was entitled "Good Nutrition is a Treasure." Members of the teen-age steering committee conducted the meeting. Guest speakers came from near and far. A home economist in business, nutritionists from the Federal and state Extension, and a scout from a professional baseball team spoke. Students reported on the results of the rat feeding demonstrations as they exhibited the rats. Finally, candidates for the title of Mr. and Miss Physical Fitness were introduced. The county winners, whom the students had voted on just before the program, were crowned.

Refreshments were served by the County Home Demonstration Club members. Everyone enjoyed cheese dips with vegetable dippers and milk float with peppermint ice cream.

New audiences throughout Texas viewed the teen-agers' nutrition project. State and local newspapers and television stations carried stories of the program as it progressed and of the culminating program.

What did we accomplish in these three months? We've created an interest in nutrition that is still going. Teen-agers have asked for more training on what foods are needed for well-balanced meals and good snacks. Other counties in Texas want to start similar nutrition programs. There is interest in teaching nutrition education in the primary grades. And last but not least, there is definite evidence that Brazoria County teen-agers and their families have improved their food habits.

FOOD COMPOSITION TABLES

(Continued)

quently encountered is in nomenclature. A term may have multiple meanings or be erroneously used. The name butter beans is applied to yellow wax beans in some localities and to small lima beans in others. Of great assistance in identification are common and scientific names of animals and plants used for food. A table of such names is included in the new Handbook.

Many steps are involved in evaluating the material assembled. These include study of factors affecting nutritive values of foods. Among these factors are variety, geographical origin, season, stage of maturing, length and temperature of storage, kinds and degree of processing, preparations for marketing, trimming and preparation for serving at home.

Changing cultural, processing, and manufacturing practices have great bearing on changes in composition of many food products. Today's pan-ready young fryers have more water in the total edible portion, less fat, and a lower calorie value than the fryer of 20 to 40 years ago. The calcium values for bread today are significantly different from the values for bread in Atwater's day or even in post World War I period, because of the modern manufacturing practice of using nonfat dry milk and of adding calcium-containing mold inhibitors and dough conditioners in breadmaking. The calcium content of white bread today is nearly three times that of the white bread of the 1920's.

Interpretation of data on composition involves many steps. A value must be found that will represent the amount of a nutrient contributed by the food described on a year-round basis in any area of the country.

This single figure is not necesarily the arithmetic "average" of the range of values reported. It is a *representative* value determined by taking into account all the known factors affecting the content of a given nutrient in a particular food. Each food has natural characteristics. Therefore, the means for deriving a representative value differ from food to food.

Factors found to be correlated with the change in content of important nutrients vary with the food. Vitamin A in sweet potatoes is related principally to variety; ascorbic acid in potatoes to maturity and length of storage; vitamin A in butter to season of year and area of production; ascorbic acid in oranges to site of production, variety, and time of picking within the harvest season. Other foods are subject

(Continued on Page Eight)

FOOD COMPOSITION TABLES
(Continued)

to these and many other invironmental influences.

Thus the single figure in the table may be the arithmetic mean of the analyses assembled and evaluated. Or it may be weighted by the related factors so that it represents, as nearly as possible, the contribution of a nutrient by a food on a year-round, countrywide basis.

The new Handbook No. 8 provides approximately 45000 single figures. Behind some of these single figures, as for ascorbic acid in tomatoes, are hundreds of analyses. Behind the figures for nutrients for some other important foods no data at all have been found in the published literature.

There are limitations of "average" values. An "average" or representative value cannot be used when the exact amount of a constituent in a specific food must be known. A direct chemical analysis of the food ingested is required, for example, in balance studies often used in nutrition research.

Applications of data in the table

Tables of food composition that are soundly based on exhaustive research and are prepared to serve as an official reference have broad applicability. They provide values that take into account varietal, seasonal, and geographic differences in the nutrient content of foods; their loss or gain of nutrients through harvesting, handling, commercial processing, packaging, storing, and home practices of preparation, cooking and serving; and the weighting of production and consumption statistics.

Such tables are indispensable to workers engaged in evaluating the national food supply, in developing programs of food distribution both countrywide and foreign aid, planning household food consumption surveys, and in estimating nutritional value of an individual's food intake. They are the basic references for dietitians in institutions, hospitals, schools, and homes. They are necessary to the medical profession. They are relied upon by teachers, writers of textbooks, regulatory agencies, industrial laboratories, publishers of popular periodicals, by those in the welfare and nursing services, and by the homemaker planning the family meals.

These data, in sum, contribute not only to knowledge of the science and technology of food; but, through their innumerable channels of usefulness, to improvement of the nutritional status of man.

GLANCES AT NUTRITION RESEARCH

Findings from nutrition research can point the direction toward adequate nutrition for the individual. However, pressures within social settings and the environment shape, to a large degree, attitudes and behavior of individuals toward food. Behavioral studies open avenues to teach nutrition research findings.

Obesity In Children—The author points out that there is no general agreement on a satisfactory standard for growth. However, for this age group, subcutaneous thickness appears to be the most reliable, and easiest, basis for diagnosing obesity. Obesity that develops before age 10 or after 16 is difficult to treat whereas obesity developing just before puberty may be physiologic and is often self correcting in the next few years. Studies are presented which show that inactivity may lead to the development and perpetuation of obesity. The psychologic effects of obesity on children and adolescents are discussed, and it is noted that obesity exposes these individuals to difficult situations and damaging pressure.

Mayer, J. *Some Aspects of Obesity in Children. Postgrad. Med. 34:83 (July) 1963.*

Recommended Dietary Allowances — The 1963 Recommended Dietary Allowances of the Food and Nutrition Board are presented and discussed from the standpoint of development and use in practice. The Recommended Dietary Allowances are often erroneously applied to a single individual. It is pointed out that their intended use is to serve as a guide in planning diets for population groups. It is noted that the concept of expressing the Recommended Dietary Allowances in ranges was rejected because this would lead to confusion and misinterpretation. Using a theoretical example of thiamine requirements, it is illustrated that statements made about individual intakes as they relate to the Recommended Dietary Allowances have little meaning with regard to status of a nutrient. Using calcium as an example, it is shown that an estimate of a practical allowance for a nutrient cannot always be derived accurately from existing data. The Allowance for calcium for children between ages one and nine has been decreased from 1 gm. to 0.8 gm., and the Allowance for calories for the adult has been decreased. Reasons for these changes are presented.

Engel, R. W. *1963 Recommended Dietary Allowances. J. Am. Diet. Assn. 44:91 (Feb.) 1964.*

Health Concerns Of Adolescents — To determine some of the problems, attitudes, and opinions of adolescents relative to health information and care, questionnaires were sent to boys and girls between the ages of 13 to 19 years in the state of Washington. Six hundred and ninety usable responses were received with a fairly even distribution of boys and girls. When asked if they had any health problems, nearly 27 percent of the adolescents said they did. The largest group was concerned with growth and weight. Other areas included eyes and ears, respiratory problems and emotional problems. Diet was of some concern to at least 50 percent. Although 86 percent stated they had a family doctor, approximately 50 percent visited him only when ill. The doctor's personal qualities governed whether adolescents consulted him with personal matters. Less than one percent turned to school personnel for help in spite of the fact that the adolescent's chief worries centered around school problems. The authors conclude by pointing out that perhaps individual counseling in schools should be improved.

Deisher, R. W. and Mills, C. A. *The Adolescent Looks at His Health and Medical Care. Am. J. Pub. Health 53:1928 (Dec.) 1963.*

Nutrition Attitudes Of Teen-Agers — This is a report of a method to obtain information about some of the attitudes and motivating forces behind adolescent food habits. The interview technique was used with 75 teen-agers who were subjects of a nutrition project. Questions were developed to explore attitudes toward nutrition, how the adolescent might be motivated to improve his nutrition and how the nutrition project might be improved. After examining attitudes expressed by this group, the authors were of the opinion that if one could get the influential teen-ager to eat a well-balanced diet and make it a fad, many others would follow the example.

Spindler, E. B. and Acker, G. *Teen-agers Tell Us About Their Nutrition. J. Am. Diet. Assn. 43:228 (Sept.) 1963.*

DAIRY COUNCIL DIGEST

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SERUM TRIGLYCERIDES AND CARDIOVASCULAR DISEASE

Summary

Recent research findings indicate that high levels of serum triglycerides are associated with weight gain, diabetes and diet patterns which are correlated with an increased incidence of cardiovascular disease. The evidence suggests that the level of serum triglycerides may be a better index of the disease than the cholesterol level. Further research is needed to clarify the metabolic processes involved.

Extensive research on cardiovascular disease has established an association between this disease and faulty lipid metabolism. It has become increasingly evident that a number of serum lipid abnormalities may be involved, but the relative importance of individual lipid and lipoprotein components is not yet known. Factors causing the derangement of lipid metabolism may be genetic, endocrine, dietary, general energy balance, age or a combination of these. (1) The total triglyceride present is governed by the rate of absorption of fat, the rate of endogenous synthesis of lipoproteins and the rate of clearance from the blood. Defects in any of these mechanisms could affect triglyceride levels.

Origin of Triglycerides

Dietary fats are composed chiefly of triglycerides -- esters of glycerol and three fatty acid molecules. This is also the form in which fuel is transported and stored in the body, and the main source of calories when carbohydrate is scarce. (2) As lipids are insoluble in water, they must be attached to proteins to be transported in the serum. Dietary fat absorbed from the intestine is transported as chylomicrons, composed chiefly of triglycerides with small amounts of protein, cholesterol and phospholipid. Fats synthesized by the liver are transported in the form of soluble complexes of fats and protein known as lipoproteins. As the triglyceride component of the molecule increases, the particle becomes less dense and increasingly water-insoluble. When the triglycerides in serum are measured, those of the chylomicrons as well as those of the lipoproteins are included. However, in the fasting state, normally used for triglyceride measurement, the lipoproteins predominate. Thus, an elevation of triglyceride concentration in serum reflects decreased lipoprotein density. (3)

Normal Levels of Triglycerides in Blood

Brown and co-workers have measured the serum triglycerides of healthy young Americans from birth to 30 years of age to determine normal levels. Determining the concentration on the basis of glycerol content (method of Van Handel and Zilversmidt), they found that a mean level of 2.6 $\pm$ 0.8 mEq./L. at birth increased to 3.6 $\pm$ 1.9 in the first year, but did not increase further during the next 30 years. No sex difference in triglyceride levels was noted at any age. On the basis of studies of 32 women and 36 men in their twenties, the authors believe that a fasting level above 5.2 mEq./L. is probably abnormal. (4) Using a different analytical method, Albrink et al. found that 95% of a group of healthy men 20-29 years of age had fasting levels below 5.4 mEq.L. (3)

Triglycerides in Coronary Heart Disease

In several studies of patients with coronary artery disease in which both triglycerides and serum cholesterol have been measured, triglycerides were more frequently elevated than cholesterol, suggesting that serum triglyceride concentrations might better separate the normal from the coronary population. (3) Of all patients with coronary disease, only about half have high serum cholesterol concentrations. Albrink suggests, therefore, that cholesterol is not a very useful means of predicting who will have this disease. (2) Albrink recently reported a study in which 5% of the men in their 20's, 1/3 or more apparently normal middle-aged men and over 80% of coronary patients had fasting serum triglyceride levels exceeding the "normal" level of 5.4 mEq./L. The high levels in 1/3 of the middle-aged men may be an indication of potential or undiagnosed coronary disease, as many of these men have a family history of coronary artery disease and/or diabetes and a stocky build. (3)

Brown et al. have reported that over 40% of 1500 healthy men (48-64 years) had higher than normal triglyceride levels. (4) In a group of 1900 men being studied by these investigators, 70% of the individuals who have had heart attacks in the last 8 years had above-normal serum triglyceride levels. (5) In 175 Finnish male survivors of myocardial infarction (65 yrs. of age or less), 62% had elevated serum cholesterol levels and 56% showed hypertriglyceridemia. This coronary group showed a 1.9-fold mean increase in serum triglycerides and a 1.4-fold increase in cholesterol when compared to the control group. A high triglyceride level with normal cholesterol occurred in only 12% of the cases; increased cholesterol was seen with normal triglycerides in 19% of the cases. This distribution was not influenced by the age of the coronary patient (i.e., above or below age 50). (1) However, Albrink reported that of 115 patients, 14% under age 50 and 1.4% over 50 had high serum cholesterol concentrations accompanied by normal triglycerides. On the other hand, 89% of those over 50 had high triglyceride levels, only about half of whom also had elevated serum cholesterols. (3)

Serum Triglycerides In Diabetes

The incidence of atherosclerosis is about twice as high in diabetic patients as in the general population, and is generally accompanied by distrubed lipid metabolism. Diabetes, especially if poorly controlled, is frequently accompanied by raised serum levels of cholesterol and triglycerides. Obesity is a predisposing factor in both diseases. Physical activity is considered to be related to the development of atherosclerosis and is known to improve the diabetic state. A close relationship between the ingestion of sucrose and death rate from diabetes has been demonstrated, and a relationship between incidence of death from coronary heart disease and sugar in the diet has also been found. (6) A comparison of diabetic patients in the 1930's with those of the 1950's shows an increase in atherosclerotic complications and a striking increase in serum triglyceride concentrations but little change in cholesterol levels. The change in dietary treatment of diabetics during this time was from a high-fat (60% of calories), low-carbohydrate diet to one of moderate carbohydrate and lower fat (40%) content. (2) New et al. have reported that plasma triglyceride levels increase with age in diabetics but not in normal subjects. Up to age 30 diabetic patients did not have higher triglyceride values than non-diabetics, but above 30 the mean for diabetics was greatly increased. Plasma cholesterol concentrations increased with age in all subjects to age 50, but were higher in the diabetic than in the non-diabetic at all ages. (7)

A significant increase in the incidence of atherosclerosis, ischemic heart disease and especially diabetes has been noted among Yememite Jews who have lived in Israel for more than 25 years as compared with those of less than 10 years' residence. Dietary fats used in the Yemen were mainly or entirely of animal origin; vegetable oil was used rarely. After settling in Israel, similar total amounts of animal fat were consumed, but there was an increased intake of polyunsaturated fat. However, the "settled" immigrants have higher serum cholesterol and beta lipoprotein levels. Another dietary change was in the carbohydrate, which in the Yemen was mainly starch with amost no sugar. In Israel, 25-30% of the carbohydrate eaten is sucrose. Cohen suggests that excessive intake of sucrose possibly leads to a state of "relative insulin insufficiency", which may alter vascular structures, disposing them to the infiltration of lipids. He postulates that some defect of the vascular system may be genetically transmitted and that in such individuals even mild insulin deficiency may initiate atherosclerosis. (6)

WORTH NOTING

MATERNAL DIET AND GROWTH OF OFFSPRING

Effect of Dietary Restriction of Pregnant Rats on Body Weight Gain of the Offspring. Chow, B.F., and C. Lee. J. Nutrition 82:10-18, 1964. The effects of dietary restriction during growth on physical development have been frequently measured but there are few studies evaluating dietary restriction during pregnancy or lactation. In this experiment, one group of female rats were fed a balanced stock diet ad libitum, the second group was fed 75% of that eaten by the first group and the third group received only 50%. The animals were maintained on the respective diets throughout gestation and lactation, the weanlings then being transferred to individual cages where they were subsequently fed balanced diets in adequate quantities. Food restriction significantly reduced the number of young born, although the females had virtually no weight loss during pregnancy. The mean body weights of the offspring from the restricted groups were consistently below those of the unrestricted group: 25-30% lower in the case of males and 15% lower for females. These differences were maintained for up to one and one-half years after weaning. At 6 weeks of age hematocrit and hemoglobin levels were significantly lower in the young from restricted females but the differences disappeared by 24 weeks. Offspring from restricted females also were less able to withstand the stress of 0° C. than were the control animals. These adverse effects could be corrected by pituitary extract or growth hormone when the hormone was administered shortly after weaning but not 3 months after birth. It does not appear that the results observed can be attributed to an insufficient intake of any single limiting nutrient nor to caloric insufficiency alone. Further studies are in progress.

MINERAL UTILIZATION IN BREAST FEEDING

Effect of Giving Phosphate Supplements to Breast-Fed Babies on Absorption and Excretion of Calcium, Strontium, Magnesium and Phosphorus. Widdowson, E.M., R.A. McCance, G.E. Harrison and A. Sutton. Lancet II: 1250-1251, 1963. Cow's milk contains more calcium, magnesium, phosphorus and strontium than breast milk. Earlier studies have shown that babies 7 days old receiving cow's milk absorbed and retained more of these minerals than babies fed breast milk. Breast fed infants excreted in the urine practically no phosphorus but more calcium and magnesium than bottle fed infants. The addition of small amounts of inorganic phosphates reduced the excretion of calcium and magnesium in the urine, suggesting that the retention of calcium and magnesium from breast milk was limited by the amount of phosphorus in the milk. Babies 7 days old fed breast milk absorbed less strontium than those on cow's milk, but excreted more in the urine and feces than the food contained. The authors suggested that the larger amounts excreted in the urine were due to phosphorus being the limiting factor in the formation of bone, as the amount excreted was reduced when inorganic phosphates were added to the breast milk. Another explanation was that the addition of phosphates to breast milk reduced absorption of calcium and magnesium by the intestine and the decreased amounts in the urine were the response to this. To test these theories, 11 breast-fed baby boys were given a supplement of 120 mg. phosphorus daily as the neutral sodium and potassium salt on the 5th through 8th days of life, with 11 other babies not given the supplement serving as controls. The additional phosphorus increased the amounts of calcium and magnesium absorbed, and reduced the quantity in the urine. Less strontium was excreted by the kidneys when phosphorus was added. As in the earlier study, the amount in the feces was greater than that in the food. The finding that the addition of phosphorus to breast milk increased retention of calcium and magnesium "demonstrates that the amount of phosphorus in the milk may very well limit both the calcification of bone and the growth of the soft tissues at this age."

PROTEIN INTAKE AND MENTAL RETARDATION

Application of Newer Knowledge of Nutrition on Physical and Mental Growth and Development. Cravioto, J., Amer. J. Public Health 53:1803-1809, 1963. Parental size, parental body build, and nutritional status are recognized as the main determinants of growth and size. It is also well known that underfeeding affects the weight and size of different organs to a varying extent, depending on the type and time of deprivation. In the case of the brain, severe under-

Triglycerides and Weight Gain

Obesity has been shown to be related to increased risk of coronary disease. Albrink et al. examined the relationship between weight gain and serum triglycerides in apparently healthy men aged 30-69. Those who had gained 10 lbs. or less, or had lost weight since age 25, had significantly decreased levels of serum triglycerides when compared with those who had gained more than 10 lbs. The relationship between weight gain and serum cholesterol concentration was similar but less marked. Although the leanest men had the lowest triglycerides, the highest levels were found, not in the most obese, but in those who had gained more than 10 lbs. during adult life, suggesting that excessive weight gain during adulthood rather than obesity per se may be important in the etiology of coronary artery disease. (8) Feldman et al. found that serum triglycerides were significantly higher in women over 35 who had gained weight than in those with stable weight, but no difference was observed in cholesterol concentration. (9) Although triglycerides rose only many years after the weight was added, they dropped rather readily when weight was lost. (2)

Triglycerides and Physical Activity

It has been demonstrated that ischemic heart disease is less severe and less common among physically active people. When groups have been classified according to physical activity, people doing heavy work tend to have lower serum cholesterol values, but differences have not been clear-cut nor large. Nikkila and Konttinen studied the influence of physical activity on plasma triglyceride levels. After fasting for 11 hours, 40 healthy male subjects ate a meal containing 55 gm. fat. Two hours later, half of the men went to bed to rest for 2 hours while the other half marched with packs. In the men who marched, the serum triglyceride level was nearly as low as the original, whereas it was significantly higher in those who had rested. (10) The reasons for this difference are not known.

Triglycerides and Sugar Consumption

As noted earlier, coronary artery disease has been associated with diabetes and an increased consumption of sugar. (6) These observations suggest a possible relationship to deranged carbohydrate metabolism, perhaps mediated through serum triglyceride levels. Ahrens and co-workers have separated lipemia into (a) that induced by dietary fat and (b) that resulting from the conversion of carbohydrates to fatty acids which are esterified into triglycerides. They suggest that carbohydrate-induced lipemia is common, especially where adequate food supplies and obesity are found, whereas fat-induced lipemia is probably a rare familial disorder. Insufficient caloric intake may explain the apparent absence of carbohydrate-induced lipemia in regions where the diet is high in carbohydrate but low in calories and protein. (11)

Antonis and Bersohn studied the fasting serum triglyceride levels in South African Bantus, among whom ischemic heart disease is rare, and in the white population, which is increasingly seen to have heart disease. The diet of the Bantu contains less than 15% of total calories from fat, with large quantities of carbohydrate, whereas the diet of the whites contains about 40% from fat. Fasting serum triglyceride levels were significantly higher in ischemic heart disease patients of both sexes as well as in the white males over age 40; lower levels were seen in the younger males, premenopausal females and Bantu males of all ages. (12)

Anderson and associates reported the effect of glucose, sucrose, and lactose on the blood lipids of healthy men accustomed to a "standard American diet" with mixed fat contributing 35% of the calories. A low fat diet supplemented with sucrose as the main carbohydrate increased serum triglycerides while the same low fat diet supplemented with fat (corn oil) produced lower triglyceride levels. In contrast, the sucrose diet lowered cholesterol levels. In subsequent studies, all three sugars behaved essentially the same from the blood lipid viewpoint, producing a 55% increase in triglycerides which returned to the original level when the standard diet was fed. (13)

Dietary Fat and Serum Triglycerides

Effects of high fat diets on both blood cholesterol and triglyceride levels have been reported by Shaper and co-workers, based on studies with adult men in three nomadic tribes in Northern Kenya: the Samburu, Rendille, and Turkana. Earlier studies indicate a low incidence of coronary

heart disease in these groups. The Samburu and Rendille tribesmen subsist on diets of milk, meat, and blood with practically no carbohydrate, whereas the Turkana diet contains grain as well as milk and a variety of meats. The total serum cholesterols of the Samburu are low throughout life whereas the triglycerides increase between age 40 and 70. Among the Rendille tribesmen the total cholesterol is significantly higher and increases with age whereas the triglycerides, which are also significantly higher, decrease after age 40. Blood lipid levels in the Turkana are similar to those seen in the Samburu except for higher triglycerides after the age of 30. The authors suggest that high fat diets may not produce elevated serum cholesterol and/or triglyceride levels if caloric intake is nearly balanced by physiological needs. The Samburu in particular probably have a dietary intake just sufficient to meet needs, although they have larger seasonal variations in food supply than the other two groups. Unfortunately, more detailed information about the dietary habits, activity patterns, life expectancy and causes of death of these groups is not yet available. (14)

Forty-five moderately active white and Bantu subjects were given a low-fat (15% of calories), high carbohydrate (70% of calories) diet of 3,000 calories per day. Serum triglyceride levels after 39 weeks on the diet were not significantly different between the two races. The low-fat diet was then converted to a high-fat diet by reducing carbohydrate calories to 45% and increasing fat calories to 40%, using sunflower seed oil, partly hydrogenated sunflower seed oil or butter. The latter two diets produced a progressive increase in triglyceride levels during the first year of feeding which persisted for up to two years; the other diet did not influence triglyceride levels. In all cases the triglyceride levels remained within the normal range as defined above. After the two year period, all triglyceride levels returned to the low base value when the low-fat diet was reinstated. However, the change from the high-fat to the low-fat diet produced a significant increase (peak at 5th week) before returning to the low level, suggesting that adaptive changes may take place during long-term feeding trials so as to yield different results from short-term studies. (12)

The effect of feeding butter or one of two margarines differing in degree of unsaturation as the sole source of dietary fat (37% of calories) has been reported by Morse et al. After six weeks, although the serum triglycerides had not changed significantly with respect to the starting level, the mean for each margarine group had increased while that for the butter group had decreased. The reverse pattern of change was seen in the mean serum cholesterol values. (15)

Obviously, more research is needed concerning the factors controlling serum triglyceride levels. However, the findings emphasize that diets designed to lower cholesterol levels might, in some instances, produce a rise in serum triglycerides, and vice versa. The significance of such changes requires careful evaluation.

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malnutrition does not prevent continued increases in size and weight but the sodium, potassium, and chloride content remains that of a much younger age. Other signs that biochemical maturation has not occurred are seen. Recent studies show that protein deficiency will retard mental development in infants and children. Psychological tests in malnourished children throughout South America show that mental ability is related directly to body size (where body size correlates with nutritional status) and may be inversely related to chronological age, showing that prolonged deficiency has a cumulative effect. Nutritional rehabilitation is less effective in producing mental recovery in the younger individuals. Thus it is apparent that if the full potential for physical and mental maturation is not used at each age, optimal development is not achieved. In our increasingly technological world, even a mild reduction in mental performance due to early malnutrition may prove to be a serious handicap.

ADOLESCENT ATTITUDES TOWARDS HEALTH

The Adolescent Looks at His Health and Medical Care. Dalsher, R. W. and C. A. Mills. Amer. J. Public Health 53:1928-1936, 1963.

To gain information about the health attitudes of the average adolescent who has no expressed physical complaints, a questionnaire was sent to urban, suburban and rural schools in Washington state; 698 usable responses were obtained. About half of the students indicated they worried very little about their health, and 78% considered themselves in good or excellent health. The 27% of the group (more girls than boys) claiming to have health problems were primarily concerned with growth and weight, eyes and ears, plus a few respiratory and emotional problems. Diet was of some concern to about half of the students, with 20% of the boys and 44% of the girls feeling they had a weight problem, and 6% of these related it to eating. Approximately 40% of the students said they took additional vitamins. The chief worries of the adolescents were school grades and activities, financial responsibilities, the future, car, etc. They most often turned to parents and friends for help in these matters. Seventy-six percent said they had questions on personal hygiene, body functions or sex matters that they would like to ask. Although the majority indicated they would like to discuss these topics with either their parents or a doctor, 30% said they would be uncomfortable or embarrassed to discuss them with a physician. Of the 129 students who talked to their doctor about personal problems other than health, 86% found him "helpful", "understanding", "interested" and "willing to take time to explain". The authors concluded that "perhaps those of us in school situations could work toward improving individual counseling."

ROLE OF FATS IN HEART METABOLISM

Oxidation of Carbon-14 Labeled Endogenous Lipids by Isolated Perfused Rat Liver. Shipp, J. C., J. M. Thomas, and L. Crevasse. Science 143:371-373, 1964.

Recent observations indicate that endogenous noncarbohydrate materials serve as primary sources for 2-carbon units needed for oxidation by heart muscle. The experiments reported here were undertaken to explore the importance of lipids in this process. Fed male albino rats were administered carbon-14 labeled fatty acids to label the lipids in the heart. The hearts were then perfused with buffer and the changes in lipid content and carbon dioxide production measured over a one-hour period. Although the glycogen reserves were largely depleted within the first ten minutes, CO_2 production continued for the full study period. The specific activity of the phospholipids increased during this time interval while the free fatty acids, cholesterol, and cholesterol esters decreased. Triglycerides remained essentially constant. Calculations indicate that the production of the phospholipid could account for about 70% of the CO_2 produced. The authors conclude that these changes are consistent with the hypothesis that fatty acids are extracted by the heart cells and initially incorporated into triglycerides. They are then transferred to phospholipids prior to oxidation by way of the citric acid cycle. The role for cholesterol and free fatty acids, as suggested by the decrease in these compounds during heart metabolism, is not clear from these studies.

NOTICE

Your attention is called to a symposium on NUTRITION IN CLINICAL MEDICINE to be held April 19 during the Annual Meeting of the American Institute of Nutrition, Sheraton-Blackstone Hotel, Chicago. Subjects to be discussed include the medical aspects of obesity, diet and cardiovascular disease, nutrition in hematologic disorders, and the evaluation of nutritional status.

National Dairy Council

111 NORTH CANAL STREET · CHICAGO, ILLINOIS 60606

AREA CODE 312 • 372-3156

March 17, 1964

Dr. Robert Shank
Professor and Department Head
Department of Preventive Medicine
Washington University School of Medicine
Saint Louis, Missouri

Dear Dr. Shank:

After the meeting on Wednesday there was much favorable comment both from our staff and from Mr. Sobel and Mr. Krebs. We all feel very fortunate to have your guidance.

We have acceptances from all five persons asked to serve as reviewers -- Dr. Ercel Eppright, Dr. Mary Fuqua, Dr. Grace Goldsmith, Miss Adelia Beeuwkes, and Dr. R. W. Engel. It was interesting that all seem to be enthusiastic about the production of the kind of film we have in mind. I sincerely hope the completed film will be one in which each of us can take great pride.

In the rush of the meeting I neglected to give you some expense forms so I'm attaching them now. You may also wish to see the analysis Reid H. Ray Film Industries made of the film and how they translated this analysis into a proposal. Mr. Sobel's background and the resume he submitted may be a point of interest too. Both are attached.

Thank you so much for your help on Wednesday. I am looking forward to a very pleasant association.

Sincerely,

Lorraine Weng

Lorraine Weng, Director
Department of Material Development

LW:lm
Enclosures

Stanford Sobel

103 PARK AVENUE • NEW YORK CITY 17, N. Y. • LEXINGTON 2-1450

Dear Clyde:

Since you're in Chicago, I assume that the proposed production is for the National Dairy Council. Even if that's wrong, I think it's a reasonable guess.

Although I have done my best to make the enclosed resume as meaningful as possible, it is my firm conviction that anybody who selects a scriptwriter based primarily upon the kind of information included in such a fact sheet will assure himself of a hopelessly inept and unproducible script. Very likely he will select the poorest of all possible scriptwriters, although I realize that you have to start somewhere. But I must say that there is nothing so misleading as a resume of a writer's experience written by the writer himself.

In my own opinion, the quality of the writing that appears on the finished screen seems to me the only legitimate basis upon which to select a filmwriter. So from my own personal viewpoint, the only item of any importance on the enclosed resume is Item # 12, Representative Films. I would like to be evaluated as a prospective writer for this job on the basis of the Selmer script first, if that film is finished on time, and on the basis of the other films in that list if Selmer is not available for final viewing. These films embody my personal aesthetic philosophy. They are the scripts in which I was given the freest hand by both client and producer, and I happily accept the responsibility for their forward thrust into the realm of the emotionally moving cinematic experience.

As is obvious from the enclosed resume, I have had wide experience in the nutritional and dietary film. I have a very low opinion of every film in this field which I have ever seen, including those I have worked on myself. Furthermore, I think I know what's wrong with them, and I have a philosophic viewpoint as to what is needed in this film.

What we need is a film about diet which is effective in overcoming the innate prejudices of people and in moving them in the direction of good nutrition without their being aware either of the fact that they have prejudices or of the fact that they are being moved away from these prejudices.

Item #1. The makers of the leading dietary product recently completed an ultra secret survey of suburban housewives which uncovered (among others) the following facts:

1. One out of 75 would secretly like to write either a novel, short stories, a play, or a reminiscence of a salty, interesting relative.
2. One out of 30 would like to recover and refinish an antique chair.
3. Two out of fifteen <u>freely admitted</u> to some kind of post-marital, extra-marital relationship.

4. Four out of 13 felt they were cut out to be something "better" or "more significant" than a wife-mother-housewife, and that their abilities were being wasted.
5. Four out of nine felt that they would like to do something about their weight, either up or down.
6. Three out of four felt that their families received an almost perfectly balanced diet at the present time, and that they knew exactly what was required to achieve this objective in the way of the selection of foods served at the daily meals in the home.

Item #2:
A health faddist on Muscle Beach may not have gone beyond the seventh grade in elementary school, but he feels fully qualified to deliver a four hour lecture on proper diet.

Item #3:
The best assistant cameraman in New York is a cadaverous looking nervous man with a brilliant mind and wild looking eyes. He's an absolutely dependable technician who never forgets to rack-over, to keep the camera log, and to follow focus perfectly. He does have one rather unique charactertic. He sustains himself entirely upon a diet consisting of only three items of food: wheat germ, peanut butter, and dried raisins with seeds. His only supplement is a special brand of mineral-vitamin pill which he imports from Canada, paying a special import duty in bulk quantities. No other food has crossed his lips for fifteen years, neither coffee, milk, alcohol, tea, or yogurt. He's also a chain cigarette smoker.

Now in my opinion this film should not even attempt to alter the viewpoints of the food faddists. But I would like to see us influence the housewife, and I think we can. The food faddist is important in this effort because he's an extreme example of the strength of viewpoint with which people consider nutrition. We can use him as a point of reference in the same way as the abnormal psychologist uses the neurotic to increase his insight into the behavior of normal people.

For my part, I would isolate the problem of a film on nutrition by pointing out two facts about the way people feel.

1. People feel they're already very well informed, and...
2. They feel they're already doing the right thing about nutrition.

In fact however, the true situation is exactly the opposite. Actually, people are ill-informed about nutrition, and actually they do the wrong thing for purely emotional reasons utterly unrelated to what scientific facts we do have about nutrition.

So the trouble with pictures about nutrition is that they give information and try to influence people at the surface level, without taking into account that nobody looks at nutrition dispassionately, but always at two or more emotional levels. I think we have to take the entire subject of human nutrition, express it in moving cinematic experiences at those deeper levels where the audience feels rather than thinks, and thus overcome the prejudices which stand in the way of a better understanding of this problem. Any "information" which appears in this picture would be purely incidental.

I'd like to be more specific, but I can't without first talking both with the client and with you in greater depth, and then doing some thinking about the problems of the film. I feel that a really outstanding picture depends primarily upon the mutual viewpoint and co-operation between the three elements...client, producer, and scriptwriter. I feel that we have had such a relationship on Selmer, Saline Water, NSP and AMA, and I would hope that this would be given proper weight in making the final decision on the scriptwriter. If I can provide further information or otherwise be of service, please do advise me.

2/5/64

Stanford Sobel

103 PARK AVENUE • NEW YORK CITY 17, N. Y. • LEXINGTON 2-1450

Professional Resume for National Dairy Council

1. 1940-41

B.S. in Chemistry, University of Michigan.
Avery Hopwood Major Award for Drama.

2. 1941-42.

MGM Junior Writing Fellowship. Staff writer at MGM under Dore Schary. Working on "Saint" series with george Sanders, "Tarzan" and Science Fiction serials for Sol Lesser Productions, "Music Maids" and "Orchestra Wives" with Glenn Miller Orchestra, plus other assorted and sundry "B", "C", "D", and even"E" pictures characteristic of that time, place, and era in entertainment films.

3. 1942-43.

Writer-Producer, U.S. Public Health Service Film Department. In charge of six man traveling production unit, wrote and directed films on variety of public health problems.

4. 1944-45.

On loan as writer-producer to Puerto Rico Departamento de Sanidad. Worked throughout Latin America with eight man crew producing films in both Spanish and English on variety of health problems such as midwife-training and emergency hospital organization. Among others, also produced films on basic human nutrition and on specialized dietary problems such as vitamin deficiency diseases, hookworm, bilharziasis, dysentery.

5. 1946-47.

Staff writer at Wilding Pictures Detroit and Chicago studios.

6. 1948-Present. Free lance scriptwriter at present address.

7. Industrial Experience.

Dietary and nutrition-related films written during this period for the following:

Dalton Company	National Vitamin Foundation	Evaporated Milk Producers Assn.
Ralston-Purina	Schering Corporation	Christian Rural Overseas Program.
Pfizer International	The Borden Company	Niagara Chemical Division of
Dow Chemical Company	Corn Products Refining Co.	FMC Corporation.

8. THEATRICAL CREDITS.

Two off-Broadway productions, one comedy, onemusical.
One Broadway Production, by Theatre Guild, (closed in Boston after 9 day tryout.)

9. TELEVISION.

Continuity writer and script supervisor on Omnibus Program.
Original dramas for Robert Montgomery, Studio One, Playhouse 90, Matinee Theatre, Armstrong Circle Theatre, U.S. Steel Hour, DuPont Show of the Week, NBC Sunday Playhouse, Naked City.

10. PROFESSIONAL AWARDS.

Golden Mercury at Venice Film Festival, Casals Festival Award, Two Golden Reels, Three Silver Reels, two "chris" awards at Columbus Film Festival, two "Emmy" nominations, two "Oscar" nominations, San Francisco Film Festival, Pan American Film Festival Award, EFLA award, New York Film Producers Citation for "Script Of The Year", NVPA 1963 Grand Prize, etc.,etc.,etc.,etc.

11. MEMBER:

Dramatists Guild, Writers Guild of America, Authors League of America, Screen Dramatists Guild, Screen Directors Guild International, Academy Television Arts and Scientists, The Players Club.

12. REPRESENTATIVE FILMS.

"Color Collage" for Eastman Kodak Company.
"Point Of View" produced by G.M. Basford Co. for American-St. Gobain Corporation.
"Now And Forever" for University Microfilms Inc. Division of Xerox Corporation.
"Adventures in Sharps and Flats", currently being produced by Reid Ray for H.& A. Selmer.

REID H. RAY FILM INDUSTRIES, INC.

INDUSTRIAL MOTION PICTURES
SLIDE FILMS
TELEVISION COMMERCIALS

an
original
presentation
in
visual
communication

"SEVEN AGES OF GOOD EATING"

Preliminary Suggestions for a

Color Sound Motion Picture

on

A D U L T N U T R I T I O N

Prepared Especially for

NATIONAL DAIRY COUNCIL

by

Reid H. Ray Film Industries, Inc.

December, 1963

Ho! ye who suffer! Know

Ye suffer from yourselves.

None else compels,

None other holds you that

ye live and die . . .

-- Edwin Arnold

In selecting "SEVEN AGES OF GOOD EATING" as our title and theme, we have been guided by Janus, patron of beginnings and endings.

Double-faced, immortal, incorruptible, he looks back while looking ahead . . . thus honoring the heritage of yesterdays, even as he contemplates the freshness of today and the promise of tomorrow.

"All the world's a stage,
And all the men and women merely players.
They have their exits and their entrances;
And one man in his time plays many parts,
His acts being seven ages. At first the infant,
Mewing and puking in the nurse's arms.
And then the whining school-boy, with his satchel
And shining morning face, creeping like a snail
Unwillingly to school. And then the lover
Sighing like a furnace, with a woeful ballad
Made to his mistress' eyebrow. Then a soldier
Full of strange oaths and bearded like the pard;
Jealous in honour, sudden and quick in quarrel,
Seeking the bubble reputation
Even in the cannon's mouth. And then the justice,
In fair round belly with good capon lined,
With eyes severe and beard of formal cut,
Full of wise saws and modern instances;
And so he plays his part. The sixth age shifts
Into the lean and slipper'd pantaloon;
With spectacles on nose and pouch on side;
His youthful hose, well saved, a world too wide
For shrunk shank; and his big manly voice,
Turning again toward childish treble, pipes
And whistles in his sound. Last scene of all,
That ends this strange eventful history,
Is second childishness and mere oblivion,
Sans teeth, sans eyes, sans taste, sans everything".

"As You Like It"
Act II, Scene 7

-- William Shakespeare

TITLE AND THEME

"SEVEN AGES OF GOOD EATING"

In approaching this subject, we have divided our basic structural theme into two parts.

First, to illustrate the ever-changing food requirements of individuals from infancy through older age, we have turned to Shakespeare's "strange eventful history" of the Seven Ages of Man. This provides us with a vertical continuum, easily identifiable with our audience, and of immediate interest, regardless of age. Everyone is interested in the life cycle: the young in anticipation, the old in memory.

We would plan, however, on up-dating the seven ages, more in keeping with our present society. These, then, would be -- Infant . . . School Boy . . . Youth . . . Young Husband . . . Mature Man . . . Grandfather . . . Senile Man -- and with, of course, their equal female counterparts.

The second half of our theme centers around "Good Eating," and is selected from the National Dairy Council's "Guide to Good Eating." This, of course, is the foundation to a well-balanced diet, so necessary to good health and proper nourishment, -- and, significantly, applicable for all ages! It includes your original four basic food groups: Dairy Foods . . . Meats . . . Vegetables and Fruits . . . Breads and Cereals.

The inter-relationship between the ages of man and the foods he eats is, then, the nucleus of our theme approach. It is designed to motivate people to eat better -- for health . . . for life . . . and for pleasure!

STRUCTURAL BUILDING BLOCKS

Following the establishment of a theme and general method of approach, the next step is to consider some of the data to be presented. These, then, become the building blocks which are structured into the overall meaning of the theme.

Following is a preliminary list. It is only a beginning. The truly effective film programs have their origin in a triumvirate consisting of the free and uninhibited exchange of ideas between -- the client . . . the scriptwriter . . . and the producer. This is presented as indicative only of our thoughts. It is, at best, a point of departure for subsequent discussion.

1. Current nutrition knowledge . . . and its application to everyday living.
2. Changing food needs of an individual through the seven ages of man.
3. Provide an understanding of the body needs for the right kinds of foods in the right quantity.
4. Earth does not change, but Man does. Whatever Man is today, whatever Man has made, he has made from the land, the seas, and the air.
5. Man's mind . . . his morals . . . even his acceptance of government . . . are regulated by his level of diet.
6. Nutrition, the complex science of determining the dietary needs of people.

7. Historically, it wasn't until the turn of the century that nutrition began to be investigated scientifically.

8. The five major kinds of nutrients, and their function: proteins, carbohydrates, fats, vitamins, and minerals.

9. "Guide to Good Eating" -- the four food groups: (1) Milk; (2) Meat; (3) Vegetables and Fruits; and (4) Bread and Cereals.

10. Planning more healthful diets, proper food selection.

11. Good nutrition and its rewards.

12. In a land of plenty, shocking malnutrition because of poor eating habits.

13. Losing or gaining weight.

14. Calories in common foods.

15. Using energy -- sedentary, active, and very active functions; exercising -- muscle tone, using calories, controlling weight, lessening of tension and fatigue.

16. Food fads and nutritional quackery.

17. Proper diet, vital ingredient to good health.

18. Changing patterns of eating -- yesterday and today.

19. Food and its associations.

20. At every age, the outward and visible signs of good nutrition are usually apparent in our physical appearance, our disposition, our emotional reactions, and our vigor and stamina.

But first,

let's ask ourselves a very basic question:

WHY EXACTLY ARE YOU MAKING THIS FILM?

The question is a simple one to answer . . . almost deceptively simple. With this film you want to accomplish the following objectives:

1. Bridge the gap between current nutrition knowledge and its application to everyday living.

2. Arouse adult interest to the wonders of the way the human body uses food, while implanting a recognition that these needs are ever-changing.

3. Help build an understanding of food needs and responsibilities in daily food practice.

Yet, buried in this easy answer are a number of important "side-effects" or implications, which it would be easy -- however, fatal -- to ignore. Here are just a few of the more obvious ones:

1. There is a certain hard core group of food faddists who are strongly opinionated about what constitutes good nutrition and proper eating habits. Unfortunately, it is virtually hopeless to try to reach them, and a waste of money besides.
2. There are several conflicting schools of thought on proper diet and the relative importance of the five nutrients within the profession itself. In short, any approach in this area will be hailed by some, criticized by others, either way tending to place you on a tightrope.
3. In spite of our abundance, many in the audience already suffer from malnutrition because of poor eating habits. They either eat too little or the wrong kinds of food. Many of them know it, and will tend to be embarrassed when reminded of it. Many others will agree in principle, but will fail to make any constructive changes. Regrettably, for others, proper eating is always something to be tackled "tomorrow."
4. The introduction of an organized plan or a recommended procedure on a day-to-day basis, in itself, finds resentment by some. They do not want to inflict any regulatory rules on the pleasures associated with eating. For this group, although there may be acceptance to the idea, the confining restrictions of eating by plan are distasteful and undesirable.

So now we can isolate and identify

THE BASIC PROBLEM OF THIS FILM

THE BASIC PROBLEM: COMPETITION AND ACCEPTANCE

The basic problem in designing this film lies in competition and acceptance. Not competition for customers in the business sense, but competition for audience -- for that all-important but indefinable goal, which we term "impact value" or "recall significance."

Acceptance is also of key importance. All too frequently films produced in this area in the past have been "preachy" . . . "dull" . . . "uninteresting" . . . or "too technical". Yet, this is a vital subject that must be better taught, and one in which people must come to be better informed. For, in some cases, it's as important as life itself!

This problem is compounded, in part, by the number of films being made today. Hundreds, perhaps thousands of sponsored films are made annually. Nobody really knows how many there are, since there is no reliable statistical or recording source. Most of them have a life span of two, five, perhaps even ten years, so that the number of messages reaching the eyes and ears of the public increases geometrically every year that passes.

But the truly astonishing phenomenon is that in spite of the great number and diversity of these films, so many follow standard story formats that they all look very much alike. If it were not for the difference in products and the company names and logos on the credit titles, you could hardly tell one from another.

So, the critical problem in planning this film is to create a motion picture that will not look like all the others now deluging physicians, dieticians, nutritionists, civic organizations, churches, and schools . . . one that will be aimed honestly, and produced from the adult point of view . . . a film that will have such unique impact value that people will remember it long after the music comes up to cover the end title . . . and, finally, a film which will rise far above the "competition" for audience impact. So . . . . . .

THE BASIC PROBLEM IN PLANNING THIS FILM

IS TO CREATE A TRULY DISTINCTIVE MOTION PICTURE

THE SOLUTION TO THE PROBLEM

Stated briefly . . .

. . . to design a film with so much intrinsic design interest and providing such valuable information on improved nutrition that adults from all walks of life will be attracted to it, and will like it enough to listen to our story.

Well, now, that's rather glibly stated, but how do we do it? Like this: . . . . . .

WE DO IT WITH TECHNIQUE

Unusual technique is the solution to our film problem.

There is a whole class of films which present a rather extraordinary situation. In these films, and our film is one of them, "The <u>way</u> you say it is just as important as <u>what</u> you say."

Technique becomes as important in its own way as the message itself. As a matter of fact, <u>unless</u> advanced and new techniques are employed, the audience of today just will not get or pay any attention to the message.

What, then, will our technique be?

FILM TECHNIQUES

To be effective, the film techniques selected must capture the inner significance of nutrition, extract from it the basic facts and figures, and translate them into meaningful, emotional terms, expressed in uniquely cinematographic experiences.

Accordingly, we see this as being a highly styled film -- unusual in its concept and execution . . . combining real-life photography and imaginative art concepts. It should be a lyrical, personally meaningful visualization of a complex subject.

We would like to consider it as an exciting exploration in sight and sound. The camera would really become a free, uninhibited, seeing, living entity unto itself.

For instance, through advanced layout, design, and experimentation, we would want to capture the sense and feel of nutritive scientific research since the turn of the century, yet always in human, impressionistic terms. Vignettes on such elements as the living cell, good health, body growth and development, the seven ages of man, needs of the ever-changing human body, would be conceived in uniquely imaginative, impressionistic terms.

Actually, as we see it now, we would use live-action, animation, and photomicrography which would verge on the

abstract -- but always real photography and not trick photography. The greatest emphasis would be on the picture, wedded to an original, sophisticated musical score, with a minimum of voice or narration. As such, music would be conceived and used as an active component in the telling of the story.

The type of art and animation used would be of singular importance for building a feeling of freshness and modernity. A straight, diagramatic approach would be dull and uninteresting. Yet too highly stylized or very abstract designing will tend to detract from the educational nature of the material. Therefore, we would think of it as being in a semi-abstract, liquid form, along the following lines.

In a sense, it might be termed as a simplified, diagramatic type of form. For example, if we started with conventional chemistry diagrams and models in certain instances, we could keep the traditional configurations as skeletons. This would add a certain "scientific accuracy" to the project. Obviously, any visualization of molecular or atomic activity is symbolic, since it has no basis in physical reality.

The microcosm for the seven ages of man might be illustrated as a simplified diagramatic figure made to appear full of chemical and nutritional activity. As such, it would be a compromise -- enabling the average

viewer to appreciate the beauty and complexity of biochemistry without offending the scientist.

In other instances, we might wish to work from both flat, molecular diagrams and three-dimensional models. This would enable us to create a representation which could be animated, and also one that the model-makers could construct without too much difficulty. Throughout, our aim would be to get the artwork onto film so that it would appear mysterious, elusive, and nutritive in feeling.

This, then, would be a combination of conventional photography -- shot from unusual angles, possibly connected by jump-cuts, and conceived along "picture-rhythm" lines -- along with selected use of new, modern, impressionistic art techniques.

As such, it is a film which combines widely disparate elements: it would have taste and style -- yet be a worthwhile educational tool. It would have flair and verve -- yet transmit a substantial adult message. It would assume the audience has a certain amount of sensitive acuity -- yet not ignore those who have pre-conceived ideas on good diet and proper nutrition.

Above all, it seems to us the picture must effect a potent blending of the intellectual and artistic with the practical, so that it will appeal to the widest possible audience. In short, the picture should be both provocative and entertaining.

A HIGHLY-STYLED IMPRESSIONISTIC FILM . . . what is it, really!

The difficulty in making a recommendation for a film such as this is that it doesn't lend itself well to description. Actually, it is a format which should be seen to be understood. Unless you have had some exposure to this type of film, it is almost impossible to convey a good image of it in an outline.

Here are some of its characteristics, however:

1. Realistic location photography is taken from unusual angles, and is characterized by jump-cuts rather than dissolves. Back lighting and filters are often used, and sometimes special processing of the film to achieve unusual effects. The purpose of all this is not so much to show the location as it actually is, but rather as an artist would see it in his mind if he were painting it.

2. Studio photography uses dramatic colored gels over lights, and tends toward high-key lighting against limbo backgrounds, with props which are suggestive of the thought being expressed on the sound track, rather than props that would naturally be found in the setting involved.

3. There is a higher proportion of picture to narration, using photography with music only on the sound track, rather than photography with a narration "message" on the sound track.

4. Music is far more important than in any other kind of film because it performs a different function. Instead of being a background accompaniment, it expresses those particular inner concepts which are not put into words.

5. When artwork and animation are used, they are not representational in style. They are used, not to amuse, but to express abstract concepts

which are difficult to photograph, and as a result their style is usually a series of decorative illustrations of a rather abstract or symbolic nature.

6. The writing is characteristically sparse in verbiage. Complicated conceptions are reduced to almost childlike simplicity of language expression. The narration is a sort of stream-of-consciousness style which sometimes uses unusual grammatical constructions such as incomplete sentences and series of disconnected appositions.

7. The basic teaching technique used is the analogy, usually between something very commonplace, already known and familiar to the audience, and the abstract concept which the client is trying to communicate. For example, in one film typical of this variety, "COLOR COLLAGE", sponsored by Eastman Kodak, the principles of ad design were made analogous to baking a cake.

8. In every impressionistic film, there are two separate levels of appreciation . . . the obvious level which can be enjoyed by rather unsophisticated people, by children, even by people with an incomplete understanding of the English language . . . and the secondary level, which is deeper, more meaningful, and symbolic in concept.

The sum total of these techniques, when balanced with skill and taste, results in an entirely different kind of motion picture, a cinematic experience in which the audience participates. Instead of sitting back and watching the film as a cool observer or a spectator, the audience finds itself emotionally drawn right into the film. You don't just "watch" this type of film -- you experience it.

DEVELOPING THE PROGRAM

Like all good things worth having or doing, this will not be an easy film to produce. As a matter of fact, if all we wanted to do was sell you a motion picture most people would buy, we would never suggest developing it along the lines advocated here.

Why? It's a much more difficult film to produce. A standard industrial "pot boiler" which follows tired and tried lines familiar to all, is much simpler to do -- and usually shows it -- because it's all been done before.

To make the type of film recommended here calls for courage. It will require time and patience to research in depth and to experiment with different methods in visual interpretation. It will demand careful knowledge of the medium and the audience. It will call for experience, know-how, and craftsmanship.

Significantly, however, it will require one other vital ingredient if it is to succeed. It will call for the ability to communicate effectively between each member of the triumvirate. Each has a most important contribution to make, and this can be done only if the lines of communication are open.

We have found, in the creation and production of other "out-of-the-ordinary" films, a series of procedural steps which have proven to be singularly successful. We would propose developing this program both for and with you along these lines:

1. Creativity: Jointly select the best qualified creative source available. Preliminary research has revealed there are about twelve highly qualified scriptwriters experienced in this area. We will provide you with a resume on each, showing his experience, credits, education, etc. When these potentials have been narrowed down to three, we will then screen a sample of their work and present subsequent data. A personal meeting will then be arranged, followed by the final selection of the writer to be retained.

2. Research and Script Development: We will conduct field research along with the writer selected. Also, we would like to suggest that a top nutritionist in the field be engaged to work with us. We see this as a person of the stature of Dr. Ruth Leverton, U. S. Department of Agriculture, or Dr. Ercel Eppright, Iowa State University.

3. Formation of Advisory Committee: If you concur, we may wish to form an advisory committee of selected nutritionists and educators to review the finished scenario. This frequently gives the film added stature, publicity for the committee members, and a core group of pre-indoctrinated leaders to work with in the field.

4. Pre-Production Planning: We will arrange meetings in advance with appropriate staff members to interpret the script scenically. Also, the writer and director will make a pre-shooting photographic walk-through of the live scenes to search out the most dramatic, eye-appealing shots possible.

5. Designs, Sketches, and Story-Boards: In advance of actual production, we will submit set designs, stage mock-ups, sketches of suggested camera actions, and story-boards of the animation, so that we may all begin visualizing the scenario before proceeding with actual photography.

6. Selection of Key Specialists: You have seen how, in the case of the H. & A. Selmer Company motion picture, we augmented our own staff with other key specialists in the industry, thus assuring the maximum in screen impact. These included an additional director, set designer, music arranger, and special make-up artist. If required, we will do the same with your motion picture.

7. Coordinated Distribution Planning: We will meet with you and your selected film distributor to review all kinds of available channels to use in successfully getting the film shown.

8. Joint Planning of Collateral Materials: Although you plan and prepare many promotional flyers, take-home pieces, booklets, and educator guides, we will be pleased to meet jointly with you to consider the all-important data which will be needed to accompany this film. Such materials in this case will be particularly important, and might include: booklets, posters, folders, charts, displays -- providing such information as daily nutrient allowances, food guide data, height and weight charts, caloric values of foods, etc.

9. Coordinated Production: From beginning to end, the finished program will be under the joint responsibility of our unique sales-production team. Authority and responsibility are vested in a way that you can be sure the original concepts and objectives will not be lost through delegation, unfamiliarity, or disinterest.

ESTIMATING THE COSTS

Generally speaking, the cost of producing a film is dependent upon four basic elements: Script . . . Talent . . . Sets . . . and the areas of specified Photography. These represent the real costs of production, and since they are all readily apparent in the finished film, they largely determine the end result as well.

Because of the direct relationship between these elements and the total cost, it is therefore possible to determine one or the other in advance with a reasonable degree of accuracy. The final answer, of course, lies in the way the story is ultimately developed and told.

Until we have had the benefit of full script development, it is difficult, if not impossible, to project an exact dollars-and-cents estimate of the total cost of production. However, based upon the suggested ideas presented here, coupled with our own familiarity in the production of several films of this type, we can provide you with a carefully estimated cost range.

Accordingly, the minimum and maximum cost of production for this approximately 14-minute, color and sound, 16mm motion picture, would be between $50,000.00 and $54,500.00. A firm price within this range can be determined and mutually agreed upon following our submission and your acceptance of the finished shooting script.

Because of the unique nature of this motion picture, and its wide-spread audience appeal, you might consider shooting it in 35mm. This would offer you better quality, including theatrical distribution, if desired. This could be done at a cost of approximately 10% over the range provided.

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OUR CREDO

As America's oldest commercial film organization, we feel a responsibility to produce professional sponsored film programs of the highest quality in the industry.

Basically, we are a custom-quality producer of special-purpose communications tools.

To each assignment we strive to bring the maximum in good, original creativity, craftsmanship, and production excellence. Of equal importance is integrity . . . honesty of dealings, the delivery of a full dollar's return for each film dollar invested in the medium through us.

Closely related is the need for financial stability. Each film, regardless of its total budget, is capitalized and financed through each stage of development through our own organization. The client is thereby assured of an uninterrupted relationship conducted according to the best accepted standards of good business practice.

From beginning to end, we work both for and with our clientele in the successful development of a finished film program of which we may be mutually proud!

INDUSTRIALS:

Deere and Company
Pillsbury, Inc.
Harnischfeger Corporation
Minneapolis-Honeywell Reg. Co.
Swift & Company
Allis-Chalmers Mfg. Company
Radio Corporation of America
International Harvester Company
AVCO Corporation
Pickands-Mather
Aero-Jet General Corporation
Whirlpool Corporation
Theo. Hamm Brewing Co.
Northwest Orient Air Lines
Masonite Corporation
St. Paul Fire and Marine Insurance Co.
Northern Pacific Railway Co.
H. & A. Selmer, Inc.
Independent Grocers Alliance (IGA)
Barrett-Cravens Company
National Geographic Society
Zonolite Division of W. R. Grace & Company
Northern States Power
Louisiana State University

ASSOCIATIONS:

American Medical Association
Bureau of National Affairs
Cast Iron Pipe Research Association
Consumer Co-op Association
Modern Language Association
National Soybean Processors Association
National Machine Tool Builders Association
Financial Public Relations Association
Atlantic City Convention Bureau
Minnesota Centennial Commission
National Safety Council
National Association of Bank Auditors & Comptrollers
National Concrete Masonry Association
National Consumer Finance Association

GOVERNMENTAL AGENCIES:

United States Office of Education
United States Public Health Service
Civil Defense Administration (OCDM)
United States Navy
United States Army Engineers
United States Air Force
Federal Reserve Bank
Picatinny Arsenal
Smithsonian Institute

We welcome the opportunity of submitting these preliminary thoughts, and look forward with pleasure to working both for and with the NATIONAL DAIRY COUNCIL on the successful development of an interesting and colorful film program -- of which we can be mutually proud!

Cordially yours,

REID H. RAY FILM INDUSTRIES, INC.

Clyde F. Krebs

Clyde F. Krebs
Vice President of Sales