

I HAVE BEEN ASKED TO CONVEY TO YOU SOME OF THE WORKINGS OF THE DAIRY INDUSTRY.

I HAVE BROKEN MY TALK DOWN INTO THREE PARTS, NAMELY PRODUCTION, PROCESSING AND DISTRIBUTION.

THE DAIRY INDUSTRY TAKES IN MANY PRODUCTS & BYPRODUCTS.

SOME THAT WE ARE FAMILIAR WITH ARE WHOLE MILK, PARTLEY SKIMMED MILK, SKIMMED MILK, CHOCOLATE, EVAPORATED, POWDERED, VITAMIN ENRICHED & BUTTERMILK, CREAM, COTTAGE CHEESE, YOGURT, SOUR CREAM, BUTTER, ICE CREAM, CHEDDAR & PROCESS CHEESE.

THESE PRODUCTS ALL ORRIGINATE FROM MILK, BUT THEY ARE ONLY PART OF THE INDUSTRY. TODAY'S MODERN DAIRY PROVIDS NUMEROUS OTHER LINES SUCH AS EGGS, FROZEN FOODS, WHICH INCLUDE VEGETABLES, FRUIT JUICES, FRENCH FRYS, FROZEN PIES, T.V. DINNERS & ICE CREAM IN A NUMBER OF FORMS. FRESH & FROZEN POULTRY ARE HANDLED BY SOME DAIRIES, AND IN RECENT YEARS SUCH ITEMS AS BREAD, PACKAGED COFFEE, BACON, FACE CREAM, DETERGENTS AND OTHERS HAVE BEEN ADDED TO HOME DELIVERY IN AN EFFORT TO MAINTAIN THE VOLUME SALES DOLLAR, WITHOUT LENGTHENING THE ROUTE.

HISTORIANS & ARCHAEOLOGISTS TELL US THAT MAN PROBABLY BEGAN DOMESTICATING CATTLE BETWEEN 8,000 & 5,000 B.C. IN THE AREAS OF ASIA & NORTH EAST AFRICA. THE EARLIEST RECORD SUGGESTING MANS USE OF ANIMALS MILK AS FOOD WAS UNEARTHED IN A TEMPLE IN THE EUPHRATES VALLEY NEAR BABYLON. THIER AN ARCHAEOLOGIST FOUND A MOSAIC FRIEZE BELEIVED TO BE ABOUT 5,000 YEARS OLD. IT SOWED A SHELTER BUILT OF REEDS, MEN MILKING COWS, AND MILK BEING POURED THROUGH A CRUDE STRAINER INTO STONE JARS. MILK & FOOD MADE FROM MILK ARE MENTIONED IN THE BIBLE. EARLY HINDU WRITINGS AND HYMS OFTEN REFER TO MILK & FOODS MADE FROM IT. EARLY GREEKS, ROMANS & EGYPTIANS RECORDED THIER USE OF MILK IN RELIGIOUS CEREMONIES, AND AS A MEDICINE. THE VIKINGS CARRIED LARGE SUPPLIES OF BUTTER ON THIER SEA VOYAGES. IN THE 13TH CENTURY MARCO POLO WROTE THAT THE STRONG TARTEN ARMIES ENJOYED A FERMENTED FORM OF MARES MILK. CHRISTOPHER COLUMBUS DESCRBED HIS LANDING IN THE NEW WORLD IN 1492 QUOTE "IT WAS A WONDERFULL THING TO SEE, LAND FOR CATTLE, ALTHOUGH THEY HAVE NONE."

THE PRODUCTION OF FLUID MILK ON THE FARM TO DAY IS A VERY DEMANDING BUSINESS & REQUIRES THE OPERATOR TO BE ON THE JOB EVERY DAY OF THE YEAR. IT IS A BUSINESS IN ITSELF. THE INVESTMENT IS UPWARD FROM AS MUCH AS \$150,000.00. WITH AN INVESTMENT OF THIS MAGNITUDE, HE IS PRESSED TO PRODUCE TO THE LIMIT IN ORDER TO KEEP HIS OPERATION VIABLE. IF HE HAS DECIDED TO GO INTO FLUID MILK PRODUCTION, HE MUST FIRST OBTAIN A QUOTA. THIS IS ONLY POSSIBLE IF THE INDUSTRY IS IN SHORT SUPPLY AS FAR AS FLUID MILK IS CONCERNED. OTHERWISE HE MUST TAKE UP THE OPTION TO SELL HIS MILK AS INDUSTRIAL MILK UNTIL A QUOTA IN THE FLUID MARKET IS AVAILABLE, & IN RECENT MONTHS EVEN THE % OF INDUSTRIAL MILK IS BEING REGULATED. MAYBE AT THIS POINT, FOR THOSE WHO ARE UNFAMILIER, I SHOULD EXPLAIN WHAT FLUID & INDUSTRIAL MILK IS. FLUID MILK IS ALL MILK THAT IS CHANELLED & USED DIRECTLY AFTER PROCESSING BY THE HOUSHOLDER OR CONSUMER IN THE FLUID FORM. IT IS PAID FOR AT A PREMIUM PRICE & REQUIRES VERY RIGID SANITATION STANDARDS. INDUSTRIAL MILK IS ALL OTHER MILK WHICH GOES INTO THE MANUFACTURING BRANCHES & IS UTILIZED FOR POWDERED MILK, BUTTER, CHEDDAR CHEESE, BLENDS, YOGURT I/C & OR ANY OTHER PRODUCTS WHICH REQUIRES MANUFACTURING. THIS MILK IS PAID FOR AT A MUCH LOWER PRICE BECOUSE OF THE HIGH MANUFACTURING COSTS INVOLVED BEFORE BEING PLACED ON THE MARKET.

THE PROCESSING OF MILK TAKES IN THE PICKING UP OF ALL MILK FROM THE INDIVIDUAL FARMS BY INSULATED TANK TRUCKS. IT IS GENERALLY PICKED UP 3 TIMES A WEEK FROM REFRIGERATED FARM STORAGE TANKS & DELIVERED TO THE NEAREST PLANT FOR PROCESSING. IT IS THEN PUMPED THROUGH A CLARIFIER WHICH REMOVES ALL FOREIGN PARTICLES AND PASSES ONLY THE PURE, CLEAN MILK THROUGH TO THE HOMOGENIZER & PASTEURIZER. HOMOGENIZATION IS A PROCESS IN WHICH THE MILK IS SUBJECTED TO A HIGH PRESSURE, WHICH BREAKS THE FAT GLOBULES IN THE MILK & DISTRIBUTES THEM EVENLY THROUGH THE FLUID. ONCE THE FAT GLOBULES ARE BROKEN THEY WILL NO LONGER RISE TO THE TOP OF MILK AS WAS THE CASE IN THE PAST YEARS WHEN WE DID NOT HAVE HOMOS. THIS MAKES A SMOOTHER, MORE PALATABLE & UNIFORM PRODUCT FOR DRINKING. PASTEURIZATION OF MILK CAN BE ACCOMPLISHED IN DIFFERENT METHODS. THE OLDER OR VAT PASTEURIZATION WAS ACCOMPLISHED BY HEATING MILK IN A VAT TO 145 DEGREES F & HOLDING IT AT THAT TEMPERATURE FOR A PERIOD OF AT LEAST 30 MINUTES. FLASH PASTEURIZATION OR H.T.S.T. (HIGH TEMP. SHORT TIME) IS THE METHOD MOST COMMONLY USED TODAY. THIS IS OBTAINED ON A CONTINUOUS FLOW BASES WITH MILK BEING HEATED TO A VERY HIGH TEMPERATURE (161 DEGREES F.) & HELD ONLY FOR A PERIOD OF 16 SECONDS. IN BOTH CASES IT IS COOLED IMMEDIATELY FOLLOWING PASTEURIZATION TO A TEMPERATURE OF BELOW 40 DEGREES F. THIS PROCESS DOES NOT KILL ALL OF THE BACTERIA IN MILK BUT IT DOES KILL ALL OF THE HARMFUL BACTERIA AS WE KNOW THEM TODAY. FROM HERE THE MILK IS PUMPED TO BALANCE TANKS AND HELD READY FOR THE FILLING & CAPPING OR CARTONING MACHINES. EVEN THIS END OF THE PROCESSING HAS BECOME MORE MECHANIZED IN RECENT YEARS AS MACHINES ARE NECESSARY TO FORM & MAKE THE CARTON BEFORE FILLING WHICH WAS NOT THE CASE YEARS AGO, WHEN GLASS BOTTLES WERE REFILLED.

DISTRIBUTION IS THE THIRD AND LAST PHASE OF MY TALK TO-DAY. AT ONE TIME IT WAS SIMPLY LOADING MILK INTO A HORSE DRAWN NON REFRIGERATED WAGON & DELIVERING IT TO THE HOUSEHOLDER SIX OR EVEN SEVEN DAYS A WEEK. THERE WAS VERY LITTLE WHOLESALE MILK SOLD OTHER THAN SOME TO HOTELS & CAFES. TO-DAY WITH COSTS OF EQUIPMENT & LABOUR, THE PICTURE TAKES ON A WHOLE NEW ASPECT. LARGER DELIVERY VANS WERE BROUGHT IN TO REDUCE THE COST OF LABOUR BY INCREASING VOLUME UNIT SALES ALONG WITH REDUCTION OF DELIVERIES. THIS IN TURN REQUIRED REFRIGERATED VANS INSTEAD OF THE NON REFRIGERATED. GROCERY CONFECTIONS & CHAIN STORES HAVE TAKEN OVER A BIG % OF SALES. TO DELIVER A QT. OR UNIT OF MILK TO THE HOUSEHOLDER ONE IS LOOKING AT A DELIVERY COST FAR IN ACCESS TO THE 4 or 5¢, AS IT WAS IN THE EARLY 1950'S. DAIRIES THROUGHOUT THE U.S.A. AND CANADA HAVE TRIED ADDING JUST ABOUT EVERYTHING TO RETAIL ROUTES TO MAKE THEM PAY. BREAD, SOFT DRINKS, DETERGENTS, COFFEE, BACON & EGGS, T.V. DINNERS YOU NAME IT & IN SOME PLACE YOU CAN REST ASSURED IT HAS BEEN TRIED. BECAUSE WE ARE PRODUCER ORIENTED, WE HAVE BEEN RELUCTANT TO DEVIATE FROM DAIRY PRODUCTS, BUT SOMEWHERE ALONG THE LINE & PERHAPS IN THE NOT TO DISTANT FUTURE WE COULD BE FACING SOME DRASTIC CHANGES IN OUR HOME DELIVERY.

I HOPE THIS SHORT TALK HAS GIVEN YOU A LITTLE INSIGHT INTO THE BUSINESS THAT I AM INVOLVED WITH AS SALES SUPERVISER & CATERAS MGR. THANK YOU FOR THE OPPORTUNITY YOU HAVE GIVEN ME TO-DAY TO TELL YOU SOMETHING ABOUT IT.