

AERIAL VIEW, CARDINAL ONT.
R.C.A.F. PHOTOGRAPH

Annual Report

1945



THE CANADA STARCH COMPANY LIMITED

MCGILL UNIVERSITY

Honour Roll

- Aaron, N. A.
 Aaron, W. W.
 Abrams, C. H.
 Abrams, V. S.
 Aitken, Miss C. G.
 †Aitken, R. B.
 Alberry, E. R.
 Algate, R. E.
 Alquire, K. D.
 Amell, C. B.
 Amell, S. B.
 Amell, T. E.
 Anderson, C. W.
 Anderson, M. R.
 Armstrong, O. E.
 Baldwin, S. S.
 Balkwell, J.
 Banford, A. W.
 Barach, M.
 Barber, F. T.
 Barnhardt, W. L.
 Barton, G. H.
 Bass, H. F.
 Beard, A. J.
 Bennett, J. D.
 Bennett, W. T.
 Blair, W.
 Blair, W. A.
 Bottan, A. F.
 Bottan, A. I.
 Brayne, R. J.
 Bream, E. J.
 Brennan, G. C.
 Brennan, G. E.
 Brennan, J. W. T.
 Brennan, S. T.
 Browning, A. K.
 Bruce, W. A.
 Burchell, J. M.
 Burns, T. J.
 Burroughs, G.
 Byers, F. B.
 Caldwell, C. A.
 Caldwell, D. J.
 Caldwell, W.
 Callaghan, W. J.
 Cameron, B. R.
 Cameron, H. E.
 Cameron, Miss A. M.
 *Casaubon, F. J.
 Casaubon, J. M.
 †Casaubon, R. N.
 Casselman, E.
 Claxton, P. E.
 Coffey, J. R.
 Colligan, J. S.
 Comstock, W. E.
 Cook, C.
 Coons, C. E.
 Covington, C. R.
 Covington, W. G.
 Cowie, G. K.
 †Cowie, H. W.
 †Cowles, C.
 Crawford, J. M.
 Crawford, J. F.
 Crawley, A. J.
 Crawley, J. P.
 Croft, B. R.
 Cromwell, E. J.
 Cross, F. A.
 Cross, W. A.
 Cuning, L. E.
 Dagenais, R.
 Dagnall, J.
 Dalgleish, G.
 Daoust, J. A.
 Daoust, J. J.
 Darling, J. H.
 Davy, D.
 Davy, L.
 Daw, D. C.
 Deschamps, W. A.
 Deschutter, A.
 Devaul, E. S.
 Drummond, J. S.
 Durant, S. L.
 Eastman, J. E.
 Etherrington, W.
 Fader, E. A.
 Fairbairn, H. C.
 Fairfield, E. H.
 Fairfield, G. E.
 Farmer, R. J.
 Fawkes, C. H.
 Fee, M. E.
 Fieldus, C. P.
 Flett, A. P.
 †Fry, W. S.
 Galbraith, F. L.
 Galbraith, G. A.
 Gibson, A. M.
 Gill, F. L.
 Gill, G.
 Gill, T. R.
 Gilligan, G. J.
 Gilligan, J. A.
 Gilligan, W. G.
 Gooderich, G. W.
 Gould, F. J.
 Gould, J. A.
 Grant, R. A.
 Grenier, P.
 Harper, E. S.
 Harper, G. A.
 Harper, H. L.
 Harper, K.
 Harper, M. R.
 Harpley, W. A.
 Hitsman, F. C.
 †Holliday, A.
 Holt, Miss E. M.
 Hope, H. O.
 Huggard, J. H.
 Hughes, J. S.
 Hunter, H. B.
 Hutt, C. H.
 Hutt, P. M.
 Hutt, R. G.
 Irving, C. H.
 Johnston, L.
 Jones, F. J.
 Kain, H. A.
 Kavanaugh, G. E.
 †Kavanaugh, J. G.
 Kavanaugh, J. H.
 Keeler, D. W.
 Kennedy, H. J.
 Kennedy, K. S.
 Kirker, D. B.
 Kirker, G. R.
 Kirkby, L. E.
 Knox, W. D.
 Labelle, J. J. L.
 Latrielle, J. M.
 Lavier, P.
 Lefebvre, J. A.
 Leizert, E. A.
 Lemery, D.
 Levere, C. B.
 Levere, C. E.
 Levere, R. W.
 Darling, J. H.
 Little, W. J.
 Livings, W. W.
 Loucks, D. A.
 Madden, D.
 †Major, J. J.
 Major, W. R.
 Malcolm, R.
 Marchand, J.
 Marin, A. N.
 Marin, J. A.
 Marin, J. E.
 Marlatt, N. L.
 Marshall, C. E.
 Markell, W. R.
 Maunsell, T. R.
 McConnell, G. J.
 McCrea, J. R.
 McCurrie, W.
 McDonald, R. H.
 †McKeon, H. M.
 McLaughlin, R.
 McLeod, W.
 McMillan, C.
 McNutt, G. C.
 McNutt, R. G. P.
 Merkley, H. O.
 Merkley, L. E.
 Merkley, R. H.
 Millar, Miss M. L.
 Murdock, W. S.
 Murphy, L. M.
 Murray, J. C.
 Myers, H.
 Neilan, F. M. D.
 Nesbitt, G. S.
 Nesbitt, Wm. J.
 Nicholson, Miss I. L.
 O'Brien, F. D.
 O'Brien, J. J.
 O'Brien, R. W.
 O'Malley, J.
 O'Malley, J. M. L.
 O'Marra, L. F.
 Owens, B. L.
 Owers, D. A.
 Paquin, R. G.
 Parker, R.
 Patrick, B. T.
 Patterson, C. S.
 Patterson, F. S.
 Pearce, R. D.
 Pearce, R. J.
 Perry, C.
 Perry, C. J.
 Peters, G. R.
 Peters, H. M.
 Pitcher, F. W.
 Poaps, G. A.
 Poaps, J. W.
 Pontbriand, J. P.
 Poole, H. H.
 Pope, T. M.
 Pratt, E. A.
 Prichard, W. D.
 Prosser, K. S.
 Pulford, E.
 Quackenbush, T. R.
 Quinn, J. W.
 Quinn, J. E. B.
 Reid, G. E.
 Reid, J. A. L.
 Reid, L. J. H.
 Relyea, W. R.
 Richards, R. E.
 Riddell, G. M.
 Riddell, J. A.
 Riddell, W. G.
 Robinson, C. A.
 Roy, C. F. L.
 Running, L. A.
 Saruga, M.
 Saunders, S. L.
 Savor, H. B.
 Savor, J.
 Sayeau, A. M.
 †Sayeau, C. A.
 Sayeau, G. H.
 Sayeau, H. E.
 Sayeau, J. W.
 Scott, D. C.
 †Scott, A. H.
 Scott, J. W.
 Scott, R. A.
 Seeley, D. W.
 Seeley, G. B.
 Sexton, T.
 Shanahan, K. W.
 Shaver, G. D. F.
 Shaver, K. D.
 Shaver, M. A.
 Sheperd, J. L.
 Shirley, S.
 Shortt, B. F.
 Simpson, T. H.
 Sismey, T. H.
 Smail, W. C.
 Smith, C. H.
 Smith, C. O.
 Smith, E. M.
 Smith, L. R.
 Snyder, R. W.
 Steinburg, L. C.
 Stevens, H. J.
 Stitt, K. J.
 Stocks, W. H.
 Strader, D. E.
 Sweeney, E. M.
 Sweet, R. K.
 Thompson, G. B.
 Thompson, R. T.
 Todd, K. J.
 Towsley, C. E.
 Toye, H. E.
 Ufford, C. A.
 Ufford, D. A.
 VanCamp, C. E.
 VanCamp, D.
 Wallace, L. A.
 Wallace, R. H.
 Wallace, W. M.
 Walter, J. W. R.
 Walter, W. O.
 †Warren, G. D.
 Watson, W.
 †Wilson, H. J.
 Whyte, W. T.
 Wood, H. J.
 Wright, C. M.
 Wright, H. W.
 Wright, J. H.
 Young, R. H.

†Died or Killed on Active Service.

*Missing.

PRESIDENT'S REPORT

Montreal, March 13th, 1946

TO THE SHAREHOLDERS—

In presenting the Fortieth Annual Report of the Company and the Consolidated Financial Statements for the year ended December 31st, 1945, your Directors first wish to welcome back, and pay special tribute to all those young men and women who joined the Services and did their part in bringing the war to a successful conclusion.

Our Honour Roll is a lasting record of the services rendered to their country by nearly three hundred of our employees. This number represents nearly half of our normal complement. We honour especially the memory of those who paid the Supreme Sacrifice.

We desire to express our appreciation of the loyal and efficient service rendered by the employees throughout the entire organization and especially to those who during the difficult war years, made it possible to carry on this essential industry.

Your Directors have to record, with deep regret, the loss to the Company of Mr. Walter E. Dircks whose death occurred on October 24th, 1945. Mr. Dircks was a valued Director of the Company from 1938 and the Board feels a sense of great personal loss in his passing. The vacancy on the directorate thus occasioned has been filled by Mr. Howard G. Wascher, a Vice-President of the Corn Products Refining Company, New York.

The net earnings for the year 1945 were \$79,007.95 as compared with \$160,919.21 earned in the year 1944. The regular dividend on the Preferred Shares was paid for the first half of the year, but as you have already been advised, your Directors decided not to pay the dividend for the second half of the year on account of reduced operations due to shortage of corn which seriously affected our earnings. No dividend was paid on the Common Shares during the year.

Another factor which adversely affected our earnings again last year was the narrowing margin of profit due to rising costs while there are fixed ceiling prices for our products.

The Income Tax to be paid for the year is estimated at \$90,000.00 as compared with \$140,000.00 for the year 1944.

The amount written off for Depreciation of Fixed Assets was \$212,385.11 which is about \$6,300.00 more than in the previous year. Although we have not been assessed for Income and Excess

Profits Taxes since 1939, we consider that ample provisions have been made for this contingency.

A moderate amount was spent on new construction at our Cardinal Plant, which has been maintained in as good a state of repair as is possible under present operating conditions.

Net Working Capital at the close of the year showed a decrease of \$6,299.47.

The sum of \$50,215.29 was provided for the Pension Fund Society and charged to Current Earnings. This amount following our usual practice was determined on the basis of wages and salaries paid during the year.

The outlook for the immediate future is somewhat obscure, principally on account of the corn situation. The Canadian corn crop last year was approximately 40% of normal and most of the surplus has already been marketed. Deliveries of United States corn have been extremely light on account of the heavy live stock feeding programmes in the United States and the disparity between the feeding value of corn and the ceiling price which has discouraged the marketing of corn. We expect, however, that there will be some improvement in United States corn deliveries during the spring months. We are glad to report that, for the second half of the year, prospects are brighter as we have been able to make contracts which we believe will insure our requirements from July until the 1946 corn crop is harvested.

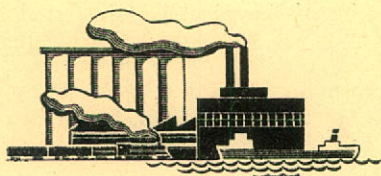
The starch industry in Canada has been greatly expanded during the war so that there is ample capacity in the existing plants to take care of the present essential demand, provided the necessary corn is available. Moreover, when normal peacetime conditions return, this capacity will also be sufficient to satisfy greatly increased Canadian requirements for products from corn.

Because the growth of this Company and the variety of products produced have many features of general interest to the public, we have included in our Annual Report this year a brief history of the Company, together with a description of our products and their uses.

By Order of the Board,

G. F. BENSON, JR.,

President.



THE STORY OF THE COMPANY

It is always interesting to learn something of the history and progress of the company in which one has an investment. So here are a few of the highlights about this business.

In 1858, just nine years before this country became a Dominion, the late W. T. Benson took ship to Canada from England. He brought with him a wealth of experience and a little money, both of which he gained from the chemical business he sold just before leaving Manchester. In addition to these, he had youth and unbounded faith in the opportunities for enterprise in this country.

After some consideration he decided to establish a factory for the manufacture of corn starch, the first of its kind in the country. The plant was built at a small village called "Edwardsburg" in the section of the country then known as "Canada West". This is the location now known as Cardinal, Ontario.

At that time it was thought to be an ideal location, as the necessary water power was available, which in those days was considered important. Then the situation on the St. Lawrence River and the main line of the Grand Trunk Railroad, was convenient for shipping to the larger centers of population around Montreal, Toronto and the Maritime Provinces. It seems odd to think of it now, but at that time, no consideration was given to the West and Northwest. Those parts of Canada were entirely undeveloped, buffalo roamed the plains, and only Indians lived there.

At the beginning, only a handful of men were on the payroll. These employees were able to handle only 200 bushels of corn a day. Thus it was some time before much progress could be made, for conditions in the country were unsettled and a free trade government was in power.

However, in 1865, the business was incorporated under the name of "The Edwardsburg Starch Company" with several prominent Montreal business men on the board of directors, and shortly after-

wards the capacity of the plant was increased to 300 bushels per day.

This development was to be the first of many, which as years went by, in spite of two serious fires, brought to the company a steady growth, prosperity and unquestioned leadership in Canada in the manufacture of products from corn.

At first the company produced only starch, for little was then known about the many other products and by-products of corn. In Europe, however, and later on a much larger scale in the United States, the manufacture of glucose was developed. In Canada, it was felt that the company should take part in this development. The first experiments were not very successful, but a short time later a fairly satisfactory glucose was turned out, and by the end of the century, the company's first trade in corn syrup, which is now such an important part of the industry, had been developed.

The company grew and prospered and in 1906, the Brantford Starch Company and the Imperial Starch Company were merged with the Edwardsburg Starch Company under the name of The Canada Starch Company Limited.

Since then, from time to time, the plant, at Cardinal, has been enlarged and modernized, and the most modern equipment available has been installed. Among the important additions to the Company's buildings have been the Oil Refinery, the Dextrine Plant and the Cerelose Plant. Mazola, a refined Corn Oil, is now largely used as a salad oil, and for cooking purposes. Dextrine is today one of the important adhesives. Cerelose is the trade name for Dextrose, a type of sugar now widely used in industry.

The growth of the company brought with it many problems, including that of transportation, which could very seriously affect the cost of its products. To overcome this, the company's own ship "Casco" was built in Hull, England, in 1927. Since then all the coal and most of the corn used by the company have been brought in by water during the season of navigation.

The plant is now capable of handling more than 10,000 bushels of corn a day, and provides work for about 600 people. A considerable change from those earlier years when the company first started in business!

The company's work does not end with the manufacture of the various products from corn. These products must be sold, and to do this it is necessary to maintain a large sales organization all over Canada. Today, wherever there is a grocery or general store in the city, village or outpost of civilization, you will find Canada Starch products.

THE CANADA STARCH COMPANY LIMITED

Directors

GEORGE F. BENSON	NORMAN J. DAWES
G. F. BENSON, JR.	W. L. MORAN
de GASPE BEAUBIEN	R. E. STAVERT
W. B. BLACKADER	F. A. WARREN

H. G. WASCHER

Executive Offices

SUN LIFE BUILDING, MONTREAL

Officers

GEORGE F. BENSON	CHAIRMAN OF THE BOARD
G. F. BENSON, JR.	PRESIDENT
de GASPE BEAUBIEN	VICE-PRESIDENT
J. M. KEDDIE	SECRETARY-TREASURER

Sales Offices

SUN LIFE BUILDING, MONTREAL

E. C. McKEOWN	SALES MANAGER
J. E. MERRITT	ASSISTANT SALES MANAGER

Plant

CARDINAL, ONTARIO

A. S. FRASER	PLANT MANAGER
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THE CANADA STARCH
AN
CANADA STARCH SALE
CONSOLIDATED
as at 31st De

ASSETS

CURRENT ASSETS:

Cash on Hand and in Banks	\$	16,914.60	
Investment in Dominion of Canada Bonds (Quoted Market Value—\$500,600.00)		500,000.00	
Accounts Receivable—Trade, less Reserve for Doubtful Accounts		474,631.28	
Accounts Receivable—Sundry		65,896.48	
Account Receivable — Affiliated Company		11,452.88	
Claims for Government Subsidies		436,488.14	
Inventories:			
Determined by actual count, weight or measurement, priced at the lower of cost or market and certified to by responsible officials of the Companies.			
Raw Materials	\$	111,298.23	
Goods in Process		104,095.44	
Finished Goods		272,510.75	
Manufacturing Stores and Supplies		364,271.18	
Mechanical Supplies and Replacement Parts		204,664.87	
		1,056,840.47	2,562,223.85

DEFERRED CHARGES TO OPERATIONS
INVESTMENT IN WHOLLY OWNED
SUBSIDIARY COMPANY:

Shares		200,000.00	
Less—Amount owing		126,959.42	73,040.58

FIXED ASSETS:

Land, Buildings, Machinery and Equipment and Water Power Rights—at Cost, less amounts written off		4,418,690.84	
Less—Reserve for Depreciation		2,661,175.47	1,757,515.37

GOODWILL, TRADEMARKS, RIGHTS AND BRANDS

1.00

APPROVED ON BEHALF OF THE BOARD:

\$4,421,229.23

G. F. BENSON, JR. }
de GASPE BEAUBIEN } *Directors.*

AUDITORS' REPORT TO

We have examined the books and accounts of The Canada Starch Company Limited and December 1945, and have obtained all the information and explanations which we have required of the Companies and examined or tested their accounting records and other supporting actions was confined to limited tests thereof.

The Department of Transport of the Dominion of Canada has made claims for approximately these claims, and on advice of Counsel, has contested them. The decision of the Exchequer Court

The Department of Income Tax of the Dominion of Canada has reviewed the income tax

The profits of Lakes and St. Lawrence Navigation Company Limited, a wholly owned subsidiary to the extent of the dividend received by your Company, the balance of the profits being carried forward

Subject to the foregoing remarks, we report that, in our opinion, according to the best of the above Consolidated Balance Sheet and the related Consolidated Statements of Earned Surplus applied on a basis consistent with that of the preceding year so as to exhibit a true and correct view of results of their operations for the year ended on that date.

MONTREAL, 27th February, 1946.

H COMPANY LIMITED
 ID
 ES COMPANY LIMITED
 BALANCE SHEET

December 1945

LIABILITIES

CURRENT LIABILITIES:

Bank Overdraft		\$ 158,424.05	
Bank Loans (Secured by Dominion of Canada Bonds)		46,724.07	
Accounts Payable and Accrued Liabilities —Trade		182,977.55	
Accounts Payable—Sundry		76,535.92	
Taxes Payable and Accrued		68,523.09	
Reserve for Income and Excess Profits Taxes	\$ 194,331.21		
Less—Paid on account	40,800.00	153,531.21	686,715.89

RESERVES FOR FUTURE DEPRECIATION
 IN INVENTORY VALUES

45,000.00

RESERVE FOR CONTINGENCIES

22,092.08

CAPITAL STOCK AND SURPLUS ACCOUNTS:

Capital Stock—			
AUTHORIZED—			
32,500 7% Non-Cumulative Preferred Shares of the Par Value of \$100.00 each		\$3,250,000.00	
62,500 Common Shares of the Par Value of \$5.00 each		\$ 312,500.00	
ISSUED AND FULLY PAID—			
30,691 Preferred Shares		3,069,100.00	
59,325 Common Shares		296,625.00	
		3,365,725.00	
Capital Surplus—			
Balance as at 31st December 1944		8,001.00	
Earned Surplus—			
As per Statement		293,695.26	3,667,421.26
			<u>\$4,421,229.23</u>

THE SHAREHOLDERS

of Canada Starch Sales Company Limited, a wholly owned subsidiary company, as at 31st
 l. In connection with our examination, we reviewed the system of internal control and accounting
 ng evidence by methods and to the extent we deemed appropriate; the audit of the detailed trans-

ately \$19,000.00 in respect of wharfage dues. The Company has not admitted the validity of
 t of Canada is pending.

returns of the Companies up to and including the year ended 31st December 1939.

idiary, have been taken into account in the attached Consolidated Financial Statements only to
 ward on the books of the subsidiary company.

our information and the explanations given to us and as shown by the books of the Companies,
 plus and Profit and Loss are properly drawn up in conformity with accepted accounting principles
 w of the state of the affairs of the combined Companies as at 31st December 1945, and the

(Signed) McDONALD, CURRIE & CO.,
 Chartered Accountants.

THE CANADA STARCH COMPANY LIMITED
AND
CANADA STARCH SALES COMPANY LIMITED
CONSOLIDATED STATEMENT OF PROFIT AND LOSS

For the year ended 31st December 1945

CONSOLIDATED OPERATING PROFIT	\$434,445.87
<i>Add:</i>	
Revenue from Investments	10,071.94
	444,517.81
<i>Deduct:</i>	
Provision for Depreciation of Fixed Assets	\$212,385.11
Salaries and Directors' Fees paid to Executive Officers	58,740.00
Fees paid to Other Directors	3,760.00
Legal Expenses	399.75
Loss realized-on sale of Investments	225.00
	275,509.86
	169,007.95
<i>Deduct:</i>	
Provision for Income and Excess Profits Taxes	90,000.00
	90,000.00
NET PROFIT FOR THE YEAR—transferred to Earned Surplus	\$79,007.95

CONSOLIDATED STATEMENT OF EARNED SURPLUS

For the year ended 31st December 1945

BALANCE AT CREDIT as at 31st December 1944	\$322,105.81
<i>Add:</i>	
Net Profit for the year	79,007.95
	401,113.76
<i>Deduct:</i>	
Preferred Dividend	107,418.50
	107,418.50
BALANCE AT CREDIT as at 31st December 1945	\$293,695.26



Corn is the "raw material" from which are made all the products we sell. You will find it interesting, therefore, to read a short story of corn and its many uses, not only as food, but also in industry.

Corn is the native grain of the American continent. It was not known to civilization until after Columbus discovered America and took seed back to Europe with him. At that time it was the staple cereal of the Indians.

It was corn that nourished the early settlers and led them farther west; it was corn that provided the surplus crops to trade for the manufactured necessities of iron, powder and cloth. And of equal importance to the early settler, it was corn that fed his livestock as well as himself.

And now, as then, corn is an essential energizing food. But chemistry's magic touch has found in the common kernel of corn substances and materials of which the early settlers never dreamed.

The first step in the manufacture of corn products is the separation of the grain into its various parts — the embryo or germ, the hull, and the endosperm, which latter is again separated into protein and starch. The embryo is the part from which oil is made; the hull and protein and germ residue is made into feed for cattle. The starch is refined and either sold as starch or converted to many other products described below.

Most people are familiar with the common uses of corn syrup in the home as a milk modifier in infant feeding and for general cooking purposes; the use of starch in cooking, in the laundry and in the bath; and the use of Mazola for deep fat frying and as a salad oil. But you may be surprised to read about some of the following uses of products made from corn.

CORN STARCH IN FOOD

Starch is mixed with pulverized sugar and salt during their manufacture. It prevents caking.

Starch is used particularly in canning corn to thicken the liquid.

Starch is used to keep the chocolate in chocolate milk drink from settling out.

Starch is used in the familiar marshmallows, gumdrops and jelly beans.

Starch is the basis of many prepared custards and pudding powders.

Starch helps form the emulsion and acts as a thickener in the manufacture of mayonnaise.

Starch is used in the manufacture of tomato juice and purees, and also in the sauce for prepared beans and spaghetti.

Starch is generally used in the recipe for cream table mustard.

A great many pie fillings are made with starch to give them body. A special starch for commercial pie filling resists the thinning action of the acid in lemons or other fruits.

Sausages contain some form of cereal filler and this usually is starch.

Starch is used for thickening canned soup.

Starch is used to give body in the forming of yeast cakes.

CORN STARCH IN INDUSTRY

In the paper industry starch is used to give a finish, and to add strength to paper. It is used as a binder in making cardboard and pasteboard, and as a binder in making corrugated boxboard.

In the textile industry starch is used in warp sizing. In the finish of textiles, both starch and dextrans are used. In the printing of textiles it is incorporated with dye-stuffs to give body to the paste. It is also used to give body and as a binder in the printing of wall paper.

By toy manufacturers, starch is used as a binder for dolls' heads.

Starch is used by match manufacturers where it forms and binds the head of the match to the stick.

In the mining industry ores settle quicker and better if a minute amount of starch is present.

There are many uses for starch in the lab, where it is coupled with iodine and used as an indicator.

In the manufacture of explosives starch is used to absorb the nitroglycerine, so that it is safer in handling dynamite cartridges.

In steel and iron castings the cores are made of sand and a binder. This core binder is very often made from starch or dextrine.

DEXTRINE

Dextrine is used to eliminate the danger of premature explosion in lead azide, one of the most dangerous explosives.

Practically every postage stamp, label, gummed tape, or sealed package is an indication of one of the many uses of dextrine.

DEXTROSE

Dextrose, one of the newer products, is a pure corn sugar made from starch, and is of interest because of its medicinal use, through its quick absorption into the blood stream.

It is used commercially in the manufacture of bread, confectionery, carbonated beverages, etc.

Soft drinks of the cola type, and meat extracts, are coloured with caramel colour. The caramel colour is made by heating dextrose with an alkali:

Dextrose gives a delicate brown colour and a crisp flake to breakfast cereals.

Meats retain a natural red colour longer when cured with dextrose.

GLUCOSE

Glucose is used to help retain the moisture in tobacco.

Glucose can be used in a great many baking recipes, not only to replace sugar but to give better texture and preserving qualities.

The confectionery industry is the largest user of glucose. Most candy recipes contain from 40% to 50% glucose. It retards crystallization of the cane sugar and is indispensable for cream varieties of candy.

Twenty-five percent of the sweetener in ice cream may be glucose. Glucose and cane sugar give a smoother texture than cane sugar alone.

Large quantities of glucose are used in the manufacture of jams.

Glucose gives sweetness and moisture to mince meat.

After the outer husk has been removed from rice, it is coated with glucose to give a polish.

Grape sugar, which is made from starch, is used by tanners in preparing chrome liquor for tanning, and as a dressing for the leather.

PENICILLIN

Steep-water, a by-product of the corn starch process is used to speed the growth of the mold from which a high yield of penicillin is obtained. This drug penicillin prevents the growth of bacteria and is remarkable for its effective treatment of certain diseases.

SOME OF THE MANY USES OF CORN

