Agricultural Tariffs

The Tariffs on Barley, Oats and Corn

Theodore W. Schultz

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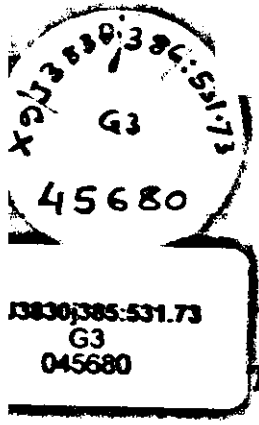

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Published by
Tariff Research Committee

The Tariffs on Barley Oats and Corn

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MADISON, WISCONSIN

THE TARIFFS ON BARLEY OATS AND CORN

by

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Madison, Wisconsin

1933

Printed in the United States of America by
The Hawkeye-Record Press, Mount Vernon, Iowa.

EDITORS' INTRODUCTION

The tariffs on the course feed grains—barley, oats and corn, are excellent examples of purely nominal duties. They are practically without effect on the prices of these products. While the tariff on sugar is fully effective because we import half of our supply, and the tariff on dairy products is partially effective because we are on the borderline between an import and an export basis, the tariff on these grains is without constant or significant effect, because they are indirectly and directly on an export basis.

The small exports of feed grains in their original form, generally much less than 10 per cent of our production, are supplemented by relatively larger exports in the form of pork products. Inasmuch as the feed grains are used primarily for the production of meat, poultry and milk, their value is largely determined by the prices of these commodities. Since hogs are the chief consumers of feed grains, the relationship between grain and meat prices is not mathematically precise, but it can readily be seen that cheap meat means cheap grain, while high meat prices accompany high grain prices. In general meat prices govern grain prices though temporarily the relationship may be at least partially reversed. In the long run, therefore, the tariff on the feed grains can be effective only insofar as the price of meat products, especially pork, can be maintained above the world level. On the whole, thus far, this has not been achieved.

While the ineffectiveness of the tariffs on most Corn Belt products has always been recognized by economists, it seems that propagandists have succeeded in convincing the farmers that these duties are of great benefit to them. Recently, for instance, a representative from Nebraska, discussing the tariff bill, said, "The district I represent is an area of the best part of the American Corn Belt . . . . If this bill favors agriculture, it will favor Nebraska. With its passage practically every product of the Corn Belt will be protected",[1] on the other hand, some of the opponents of the bill called these duties "paper rates", "nominal rates", "useless duties", "quack duties", "gesture duties", "fake rates", "political breadpills", and other similar epithets. While some legislators appear to have been deluded about these rates, others, although personally aware that rates on exported commodities

[1] *Congressional Record*, September 19, 1929, pp. 3683-84.

were valueless, nevertheless were apprehensive about the effect upon their own political fate should they publicly proclaim that fact. In view of the popular belief in the tariff, they hesitated to criticize these duties lest it be believed that they were opposed to the best interests of their own constituents. Some representatives, however, in urging higher duties did so in the hope that the Export Debenture could be attached to the tariff bill, or enacted at a later date. Since it was hoped this would make the tariff effective on these export commodities, it was felt that the higher the rates could be put, the greater would be the benefits to be derived from the Debenture, if and when it could be enacted.

The prices of the feed grains are interdependent. As feeds they are interchangeable, and they consequently bear a fairly constant price relationship to one another, rising and falling together. This is illustrated by Professor Schultz's Table 6. The major determinants of corn prices are, (1) the size of the corn crop, (2) the quality, (3) the number of hogs and their price, and (4) the size of the oat and barley crops. The major barometer of feed grain prices is the price of corn, and from the demand side one of the limiting factors in corn prices is the price of hogs and pork. So long as the latter are on an export basis, there is little hope that the tariff on corn or the other feed grains will be of any considerable value to the farmer.

Barley. Barley is grown chiefly for feed in the North Central States, Minnesota, North and South Dakota and Wisconsin; and in California for sale to English buyers for malting purposes. About two-thirds of the barley produced is used as feed for meat and dairy animals on farms where it is grown. The other third enters the channels of trade, and of this only about a third, is exported. Minneapolis is the principal barley market. Shipments from the barley producing regions are assembled there and at several other centers and then sent on their way East to deficit feed areas. Since the deficit area is in the eastern part of the United States, the barley moves by lake routes to Buffalo or Montreal, from which points it is either distributed locally to satisfy domestic needs, or exported. These exports are, however, sporadic, while those of California have been rather consistent.

Recently some hope has been entertained that a revival of the malting industry would be of great benefit to the farmers. Such a revival would, however, probably result in a distinction between

malting and feed barleys. The price of feed barley would probably be affected very little, though the prospective demand for malting barley would tend to raise the price of the better grades. The advent of prohibition caused the direct per capita consumption of barley to decline from 21 to 6 pounds per year. In 1917, 42 per cent of the crop was used for the production of alcohol and fermented liquors, while in 1931 only 3 per cent was so used.

The statistical analysis made by Professor Schultz bears out the previous observations that except for some extraordinary circumstances (see Chapter V) the tariff has been, aside from isolated instances, without value in raising Minneapolis above Winnipeg prices. At some times Winnipeg prices have actually been above those at Minneapolis. It is quite likely that the duty on barley will remain largely ineffective on the bulk of the crop, even though a considerable quantity is used to make fermented liquors.

Oats. The present duty of 16 cents per bushel on oats is without value to the farmer. Despite the decreasing use of oats as feed for horses, oat production has held close to its peak acreage. This is largely because climatic and economic conditions are not the determining factors in oat production. Oats have a place in the crop rotation in Corn Belt farms. Since they are extremely bulky, they cannot be shipped long distances; nevertheless, in recent years about 25 per cent of United States production was shipped out of the county where grown. Since oats are largely consumed locally, the American crop competes with the Canadian only in the eastern part of the United States. The grain moves from west to east along much the same lines as barley. As in barley, the North Central States constitutes the surplus area, the eastern states the deficit area. Oat production is nominally on an export basis, although only about one per cent of the crop is actually sold abroad, and the price depends almost entirely on domestic factors.

A statistical test of the effects of the oat tariff is not as readily made as it is in other products whose value is determined in fluid markets by national conditions. Local surpluses and scarcities may create purely local prices, which our organized markets do not entirely overcome. The closest approximation to national markets may be found in Minneapolis, Chicago, and Buffalo, and in Winnipeg and Toronto in Canada. A comparison of these prices shows that, except in unusual circumstances, the tariff on oats will probably continue to be without effect. Canadian prices have been sometimes lower, sometimes higher than American prices.

Corn. Although it is well known by economists that the tariff on corn has been practically without effect, it has been progressively raised until it is now 25 cents per bushel. These raises have been sought because it is argued that Argentine costs of production are lower than ours. Nevertheless, so long as corn remains on an export basis it must compete with foreign production whether or not it is "protected" by a United States duty.

The United States and Argentina are the only corn exporting countries of the western hemisphere. Although some Argentine corn is brought into the United States on the eastern and western seaboards, it does not furnish effective competition. In the Liverpool market American corn seems to sell at a higher price than Argentine corn. The Argentine crop is predominantly flint, while that of the United States is of the dent variety. About 84 per cent of our corn is used on the farm, and only about 15 per cent enters commercial channels. This corn is shipped to deficit areas in the South and along the Atlantic and Pacific seabords. Shipments, of course, originate in the Corn Belt, where in spite of the fact that this is an efficient area for hog production, a surplus of corn is available.

About one-half of the corn entering the markets originates in Illinois and Iowa, while nine states supply 87 per cent. Although only about one per cent of the crop is exported as grain, one of the major price determinants of the total crop is the price of hogs and pork, which are on an export basis.

The relation between corn and hog prices is known as the corn-hog ratio. This ratio consists of the number of bushels of corn required to equal in value 100 pounds of hogs. It is an expression of the relative value of corn as a grain or as a hog feed. For the last several years it has averaged 11.4 bushels at Chicago. Since the response of the corn producer and the hog feeder to this ratio is not perfect, for reasons discussed by Professor Schultz and others, the prices of corn and hogs can get out of line temporarily. Over a period of years, however, they cannot get so far out of line as to remove the price of hogs from its position as the fundamental factor in the price of corn and the other feed grains.

However, corn is used not only as livestock feed, but for human consumption and for the production of alcohol. Some people believe that import restrictions on blackstrap molasses, which is also used to make alcohol, will increase the demand for corn. As early as 1824 efforts were made to put a duty on West India rum, in the interest

of corn producers. This is similar to the attempt to raise the duty on the blackstrap molasses in the Smoot-Hawley bill. It appears, however, that even were it possible to compel the entire industrial alcohol industry to use domestic corn, instead of blackstrap molasses, in making alcohol, only 3 per cent of the crop would be absorbed. Blending gasoline with alcohol is an outlet now being considered. It would require a tax on gasoline and even higher tariffs on blackstrap molasses in order to work successfully. Even so, it is very doubtful whether these taxes would have any appreciable effect on corn prices. Furthermore, it is possible that those alcohol manufacturers who did not continue to use blackstrap molasses in spite of the duty would produce synthetic alcohol.

One of the limiting factors in raising the price of corn and the other feed grains above world levels is the one-eighth of our total hog products which are now exported. Lard, the most direct product of corn fed to animals, is strictly on an export basis, one-third of our production being sold abroad. These exports make the domestic price of the entire output of hogs, corn, and the other feed grains dependent upon the prices paid in the foreign markets. It appears, therefore, that so long as there are surpluses of meat products sold abroad the tariff on corn will continue to be without value to the American farmer.

The Domestic Basis.[2] Should, however, grains and meats cease to be sold in the export markets, the extent to which their prices could be raised within this country would depend largely upon the elasticity of demand of consumers for meat products. The Agricultural Adjustment Act of 1933 has for one of its purposes the reduction of production to a domestic basis. The tariffs on the feed grains and meats are an integral part of this program, for if it is hoped to raise domestic prices above world prices by restriction of production, a barrier must be put up against the foreign supply. The success of the crop restriction program as applied to grains and meat is, of course, uncertain. But even should it succeed it should not be forgotten that the ability to dispose of at home at higher prices whatever quantity of food is produced will still depend on the purchasing power of domestic consumers. So long as business continues to be depressed and unemployment still stalks the land, it will be difficult to raise prices to a level which appears satisfactory. To curtail production

[2] The views expressed here are those of the editors since the author did not discuss this question.

so greatly that only the higher income groups can afford meat is virtually impossible and clearly not desirable. To supply all of the domestic population with meat means that the price must remain quite low because the unemployed or partially employed and low income groups will be forced to curtail their purchases should prices rise beyond their reach. The butter tariff (See R. R. Renne, *The Tariff on Dairy Products.*) well illustrates the fact that prices can not be raised to profitable levels simply because a tariff protected commodity is on a domestic basis of production. The tariffs on barley, oats, and corn can not consequently be made effective, nor can the price of these grains be greatly raised simply by reducing or entirely eliminating exports, and restricting or prohibiting imports. Meat exports and imports may also disappear, but even with this done the prosperity of the Corn Belt farmer will still not be assured depending as it then would wholly upon domestic purchasing power.

JOHN R. COMMONS
BENJAMIN H. HIBBARD
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Madison, Wisconsin,
December 1, 1933.

AUTHOR'S PREFACE

This volume deals with the tariff in its relation to the coarse feed grains—barley, oats and corn. It is divided into three parts, each of which is a complete monographic study of one of these grains. My first intention was to include all of the principal cereal crops grown in the United States, but it soon became evident that in order to do a thorough piece of work it would be necessary to limit the field. Wheat was omitted because of the study then under way at the Brookings Institute of Economics and those being published by the Food Research Institute. Flaxseed, rye and buckwheat were originally given some attention as is shown by the pamphlet on *Agricultural Tariffs* released in 1929[1]. For this study, however, I chose the feed grains for two reasons: (1) their importance to domestic agriculture, and (2) the lack of any previous research on them.

These three cereal crops are closely related, which makes it advantageous to deal with similar phases of each. In the main they are produced in the North Central states; the uses to which they are put are practically the same, and since national prohibition, which placed barley almost exclusively in the feed bracket, they have shown a very close price relationship. Corn clearly dominates the others in relative importance, whether measured by the price level, domestic supplies, or foreign trade. Barley, oats, and corn are important principally because they furnish the raw material upon which the gigantic livestock feeding industry of the large central area of the United States depends.

I have written for farmers, farm leaders, and men in public life who are interested in the influence of the tariff upon American agriculture. The bulletin is intended primarily for those farmers of the Corn Belt who desire to understand the tariff in terms of the basic production, marketing and price facts of their industry. Questions of tariff theory and method of verifying the effectiveness of tariffs have been avoided. It is an attempt to tell truly and clearly the relevant facts followed with concrete analysis and, in the end, to draw conclusions that are reasonable. To the tariff student it should be pointed out that this work contains all the important statistical data upon which my conclusions rest, and theoretical assumptions are easily inferred. This should facilitate critical appraisal by those readers conversant with the economic aspects of the tariff problem.

[1] Commons, John R., Hibbard, Benjamin H., and Perlman, Selig, *Agricultural Tariffs*, Freeport, 1929.

Part I, which takes up barley, breaks new ground virtually the entire way. Heretofore, for some reason, the economic phases of barley production, the disposition and movement of the crop, foreign trade, and the price characteristics of this grain have received little, if any, attention. In the section dealing with the malting industry I have tried to analyze the influence of the Eighteenth Amendment upon the demand for barley. This was necessary because the tariff on barley is inextricably connected with the demand for malting barley. In Part II oats are dealt with, and fortunately the materials needed were readily available. They required only to be brought together. Other investigators have covered the field of oat production and prices, so that it was possible to proceed directly to the tariff question with only a minimum discussion of the crop. In Part III, which deals with corn, a more elaborate treatment is given than in the case of the other two. The importance of corn—it exceeds both in acreage and value any other crop grown in the United States—justifies the emphasis. Students of corn and, particularly, hog prices, have made many valuable contributions to economic literature, and I have drawn freely upon these studies in order to get at the tariff issue. I have given special attention to the interdependence of corn and hogs, and have attempted to show its influence upon the long time general level of corn prices.

I wish to acknowledge the help and cooperation members of the Minneapolis, Milwaukee, and the Chicago Grain trades have given me and to thank Mr. W. T. Rawleigh for the financial assistance which make this study possible. My colleagues at Iowa State College have made available for me many valuable data, especially on corn. In these researches, I have had important assistance and criticism from Professor Walter A. Morton and Miss Jane Greverus. Professor B. H. Hibbard has unstintingly given his advice and invaluable criticism. To him especially I wish to express my gratitude.

Iowa State College

THEODORE W. SCHULTZ

December, 1933.

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