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**AGRICULTURAL SYSTEMS
OF MIDDLE EUROPE**



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AGRICULTURAL SYSTEMS
OF MIDDLE EUROPE

A SYMPOSIUM

Edited by

O. S. MORGAN

PROFESSOR OF AGRICULTURE
SCHOOL OF BUSINESS, COLUMBIA UNIVERSITY

NEW YORK

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1933

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FOREWORD

The time has long since passed when the American farmer could afford to ignore what farmers in other parts of the world were doing. American agriculture is not a separate but an integral part of the world's economic system, and it is always deeply affected by financial, industrial, and social conditions both at home and abroad.

It was with that thought in mind that Congress in 1930 authorized a much-needed expansion of the Foreign Agricultural Service of the Department of Agriculture, permitting us to obtain more precise and more extensive information about foreign crops and markets. It is with much the same thought in mind that I heartily welcome this volume on European agriculture.

You will find in these pages clear and concise statements of the current situation in the surplus agricultural nations of middle Europe. The fact that all of the chapters are written by Ministers of Agriculture or other high officials stamps the volume as authoritative.

I would not leave the impression that the book is a mere statement of facts, however authoritative. Many readers will find most interest in the realistic description the volume affords of the economy, the culture, and the pattern of ideas characteristic of the farmer-peasant majority of middle Europe. We see how the peasant is built into national economic policy and politics.

For some ten years Professor Morgan has been preparing for this sort of symposium on European agriculture. In recent years he has become intimately acquainted both with the agricultural problems and the agricultural leaders of Europe. He is therefore particularly well fitted to select the contributors to this volume and to supervise the editing and publication of it.

ARTHUR M. HYDE, *Secretary,*
U. S. Department of Agriculture.

PREFACE

This book attempts to contribute authentic agricultural economic summaries of national agricultural programs and policies of Central European states. It is the combined result of the labors of busy agricultural officials and the editor. It is hardly the composite voice of the respective nationals, but it represents fairly, with a minimum of political and nationalistic effusion, the voices of authoritative spokesmen.

This symposium is not designed as a textbook for students of agriculture and agricultural economics. Rather it is offered as a source book for agriculturists, economists, politicians and other students of economic and social phenomena. It is hoped it will serve as valuable collateral reading in college courses devoted to the study of national, agricultural, economic and political policies. As such it will be used in connection with graduate courses in agricultural economics in Columbia University.

In acknowledging my thanks to those who have aided me materially in this work, I wish first to express my deep appreciation to the collaborators who have very generously contributed their respective sections of the book. Every one of these agricultural authorities has abetted my proposal of the symposium in a fine spirit of internationalism. Every one has subscribed to the principle of the pre-eminence in national and international policies of rationalized economic procedure.

Thanks are due Professor Asher Hobson, University of Wisconsin, who at the inception and at various stages of the work gave encouraging and valuable suggestions. I am indebted to Dr. Louis G. Michael, Agricultural Attaché, Belgrade, Yugoslavia, for his "Agricultural Survey of Europe" bulletins, suggesting to me, as they did, the need for such a symposium as is herewith presented. Mr. L. A. Wheeler, Head Economist, in charge of the Foreign Service of the Bureau of Agricultural Economics, Washington, D. C., gave generously of his time and facilities, as did also Mr. George L. Crawford, Senior Agricultural Economist, Division of Cotton Marketing, of the same Bureau. To Mr. J. Barnard Gibbs, Assistant Agricultural Commissioner, of the Belgrade office of the Agricultural Attaché, I owe special thanks for forwarding this work in Bulgaria, Rumania,

Hungary and Yugoslavia. Both Dr. Michael and Mr. Gibbs have greatly helped me in effecting satisfactory translations of the Yugoslavian and Hungarian sections. The office of the Consulate General, Budapest, as especially represented by Mr. John J. Ronto, has rendered me valuable service. Mr. Loyd V. Steere, Agricultural Attaché, American Embassy, Berlin, gave me unstintedly of his time and facilities in my work in Germany, Denmark and Austria. In Poland my efforts were greatly facilitated by the Warsaw offices of the American Embassy and Consulate General, Consul General Jermone J. Huddle and Consul Stewart E. McMillin cooperating most helpfully.

In Bucharest, Rumania, my contacts were efficiently promoted by Dr. D. Andronescu, Chief of the Laboratory for Plant Breeding, Milling and Baking, and national Director Const. J. Ciulei, Union of Chambers of Agriculture. Professor D. Atanasoff, Agricultural Faculty, University of Bulgaria, Sofia, was most generous and effective in establishing Bulgarian contacts for me. The desired guidance in Greece was effected through Mr. M. J. S. Caramanos, Director-General of the Ministry of Agriculture, Athens, and Mr. H. B. Allen, Director of Education, Near East Foundation, Salonica.

Dean R. C. McCrea and Professor J. Russell Smith, School of Business, Columbia University, have contributed helpful suggestions. On the map aspect of the work I have had valuable assistance from Prof. Armin K. Lobeck, and from Mr. Russell D. L. Valentine, special assistant, Department of Geology, Columbia University. I am deeply indebted to Mrs. G. E. Villâret, Leonia, N. J., for contributing the translation of the chapter on Rumania. My students and secretarial staff of the University have given substantial help in the preparation of the manuscript.

My wish to take a hand in this sort of thing has been greatly stimulated by familiarity with the inspiring accomplishments in international affairs of President Nicholas Murray Butler. His encouragement of my efforts in the foreign field of endeavor has often reassured me that current difficulties were worth overcoming. I am especially grateful to Professor James C. Egbert, Director of University Extension, former Dean and Director of the School of Business, Columbia University, for the many courtesies he has extended to me in connection with this work.

The importance to this symposium of my many opportunities since 1925 to serve the Near East Relief, latterly the Near East Foundation, in the Near East cannot be overstated. Prof. Charles P. Berkey, head of the Department of Geology, Columbia University, has stimulated my efforts by important suggestions. Our University

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committee on the "Institute of Rural Affairs" has furnished the immediate urge to undertake this work. To Dr. L. C. Gray, in charge Division of Land Economics, Bureau of Agricultural Economics, United States Department of Agriculture, I express hearty thanks for helpful suggestions and encouragement.

Finally, I wish to pay special tribute of appreciation to Mrs. Morgan for her staunch help and inspiration throughout every phase of preparing this work. The varied assistance she rendered in the survey field entitles her to large credit for the virtues of the symposium.

O. S. MORGAN.

COLUMBIA UNIVERSITY,
NEW YORK CITY,
September, 1932.

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INTRODUCTION

A chief problem confronting all lines of productive endeavor is how to diversify constructive human effort so as to provide a satisfying level of living for the respective service-rendering groups. It is generally recognized that this problem is acute in the agricultural industry. The business engineer, the agricultural economist in this case, advises that the various segments of the industry be programized, rationalized, to correct alike surplus and deficit enterprise.

The initial step in correcting maladjustments is to ascertain the pertinent facts. In agriculture discovering pertinent facts of the industry is a disconcertingly big job. Furthermore, the best statistical evidence in many agricultural fields fades into lukewarm history so fast that the economist despairs of ever mapping the world field. Yet that the work must be done sometime is the conviction of agriculturists and economists. This symposium is a contribution to the beginning, being made on one sector of the world field.

Many aspects of the work have been analyzed, especially in countries where modern agricultural technique prevails. Attempts at analysis of national agricultural policy are sometimes made by the transient visitor. But language impediments, unfamiliarity with local customs, the magnitude and complexity of the agriculture for even a small foreign state — of less than the average size of an American commonwealth — all combine to make a reliable analysis by a foreign visitor improbable or impossible. The time will come, and the editor hopes soon, when a creditable analysis of the agricultural policy of a foreign state, for example, Bulgaria, by an American will be practicable. This book, it is expected, will help toward such a desideratum.

Preliminary to such a study, it has seemed that a beginning should be made by securing the coöperation of agricultural authorities of selected states, the study thus prosecuted to be directed by an American, the details to be treated with the utmost possible accuracy by selected experts perfectly familiar with language, customs, history, and outlook. In pursuance of this idea, the editor selected a contiguous group of middle-eastern European states. The collaborators are men quite familiar with the agriculture of their respective countries.

The collaborating authorities are or had been either state ministers of agriculture or officials high in the national agricultural administration.

Middle European states were selected for this alignment of studies in agricultural policy for obvious reasons: Several of the states have been compelled to reconstruct their agricultural policies since the World War. Several of them are active competitors of America in European agricultural markets. All of them are deeply interested in being fairly and specifically understood by American agriculturists. All of the leaders conferred with and collaborating in this work are thoroughgoing advocates of economic, as precedent to political rationalization. Furthermore, this series of studies will be supported by the quite separate but correlated field work conducted by the Foreign Agricultural Service, Bureau of Agricultural Economics, United States Department of Agriculture, with offices in Berlin and Belgrade. This last-named point insures the durability of the several contributions, inasmuch as the weekly reports, "Foreign Crops and Markets," of the above Service, will keep factual data fresh. Hereby the agricultural foundations and structure supplied by this work can be redone in surface facts from this current material.

The editor has another though marginal reason for selecting these countries, namely, a conviction that agricultural rehabilitation in Europe is more likely to develop in and pivot around these countries as an economic unit than in or around countries that are more stable politically or economically, or both. The acute distress among the agricultural class in these countries leads to evolution and subsequent revolutionary changes. These changes will be primarily constructive for the states involved, though hardly less for uninvolved neighboring states.

As a concluding reason for selecting these middle European states for study, there appears to be an under-emphasis in extant and available agricultural literature on the programs and policies of these states. The symposium device adopted has seemed to the writer to be an initial step in presenting comprehensively and succinctly diverse policies.

The method followed in securing the coöperation of collaborators was briefly this: The editor in 1931 attended the XV International Congress of Agriculture at Prague, and the IX International Dairy Congress at Copenhagen. In these foregatherings of agricultural leaders he made many valuable contacts, meeting several of the national leaders who subsequently agreed to contribute chapters to this symposium. Besides studying Czechoslovakia and Denmark, he visited similarly Poland, Rumania, Bulgaria, Yugoslavia, Hungary,

Austria and Germany. Having spent an entire summer, 1927, surveying agriculture in Greece for the Near East Relief, he did not revisit this country, but depended upon acquaintances then made to effect satisfactory connections. By this means he was able to meet and confer with six of the eight chief collaborators; the others were secured through correspondence after his return to America in the fall of 1931. Each collaborator was given a standard outline to base a 20,000-word chapter on his country. The outline was by way of suggestion as to chapter content as well as sequence of topics treated therein. It was requested that the material be factual, technical rather than popular, and that authors control any tendency to introduce nationalistic propaganda. The editor asked to have the chapters in hand, completed and in English, by January 1, 1932. Several of the collaborators were unable to comply with this stipulation, resulting in a postponement of publication of over six months.

The submitted outline follows:

1. Physical factors — latitude, climate, topography, soils.
2. Population — especially agricultural population.
3. Land utilization — forests, pastures, crops, waste.
4. Brief history of agriculture, 1918-1931.
5. Land reform — estates, strip farming, consolidation.
6. Production and techniques — mechanization.
7. Marketing and marketing program — export and import regulations, price stabilization, transportation.
8. Agricultural coöperation of various sorts and sizes.
9. Taxation, insurance (especially interest rates).
10. Agricultural education, including popular.
11. Farmers in politics — farmers' unions or societies.
12. Farmers' income — gross, net.
13. Outlook for agriculture and farmers.
14. Special economic developments not included in above.
15. Pan-Europa, customs unions, etc.
16. Appendices — brief bibliography, statistical tables.

The editor has had to exercise his judgment in many instances, not as to fact but as to English form and statement. This has resulted in practically re-writing four of the chapters. There is necessarily some unevenness of treatment. Statistical matter has been included generally as submitted by authors. In many instances extended tabular material has been condensed, even omitted. Omissions of material have been largely due to lack of conciseness in statistical form as presented in the original manuscript. Condensa-

tion has been made in a few cases where the tabular matter was deemed vital and allotted space permitted.

It is the editor's plan that this book shall be the forerunner of a series of separate books on the agriculture of the countries herein represented. Such a plan is in part explained by reasons cited above for studying middle European states. The editor feels justified in preparing further separate studies on these added bases: These countries taken as a unit are dominantly agricultural. Not one of these states has so low a percentage of population gainfully engaged in agriculture as has the United States. Therefore, the deficit markets of Europe have in these states at their very side doors, a potential source of cheap farm produce — when and if these middle European states put in motion an agricultural technic that compares favorably with modern technic.

In further support of the need of reciprocal understanding among European and American agriculturists this area of approximately one-fifth of the extent of continental America and five-sixths of the population of the United States is for the most part dominated by relatively conservative and agriculturally self-satisfied technical and political leadership. In an effort to appraise the exigencies of competition, actual and potential, American agricultural leaders should become intimately acquainted with these actual and potential European market competitors. On the other hand the agricultural leadership of this European area should get, in the humble opinion of the writer, much more intimately acquainted with western world agriculture. By contributions of the order made by the authors of the ensuing chapters, it is hoped stimulus will be given to consummate the reciprocal understanding.

The editor's controlling motive in his labors has been, not to add another book to the crowded library stack, but rather to contribute substantially through this symposium toward a clearer and more sympathetic understanding among European and American agriculturists. A few exceptional leaders in both America and middle Europe may have a fair working knowledge of both home and foreign agricultural systems. Not however until this intimate and accurate knowledge becomes much more general among the leadership will this leaven leaven the whole lump of ignorant indifference.

The editor of this symposium is frankly in favor of Pan-Europe as an economic necessity. Politics, traditions, national fears and jealousies are threshold obstacles to the consummation of this obvious necessity. But a United States of America is the logical pace-setter initially of economic, and eventually of complete rationalization of

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continental Europe. Superficially, customs unions and federations among European states constitute obstacles to American agriculturists. Fundamentally such reasonable procedure must directly or indirectly in the long run enhance level of living and so purchasing power, the economic rebound of which inevitably must advantage every producer of demand and service goods. The logic of this position is that agriculture shall take its part in a world economic union.

An introduction to this symposium need not be extended, inasmuch as the authors of the following chapters are clearly articulate on a plain if expansive theme. Maps are included to indicate approximate national boundaries and to locate chief geographic details referred to in the respective sections. Tables of Contents will serve as general indexes.

THE EDITOR.

CHAPTER ONE

THE AUSTRIAN AGRARIAN POLICY

BY

DR. LEOPOLD HENNET

CHIEF OF SECTION AND

FORMER MINISTER OF AGRICULTURE AND FORESTRY

AND

DR. ANTON STEDEN

INSPECTOR OF THE CHAMBER OF AGRICULTURE
IN LOWER AUSTRIA

VIENNA, AUSTRIA, DECEMBER, 1931

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TABLE I. AREA, YIELD AND PRODUCTION OF CEREAL CROPS, 1930

CROP	AREA SOWN (Hectares)	AREA HARVESTED (Hectares)	YIELD PER HECTARE (Quintals)	TOTAL PRODUCTION (Quintals)
Wheat	2,170,950	2,123,131	10.30	21,861,501
Barley	458,507	444,032	9.11	4,043,931
Rye	253,152	246,924	8.05	1,987,561
Oats	419,676	408,484	6.98	2,849,866
Corn	2,407,253	2,398,315	14.45	34,645,745
Maslin	52,138	51,458	8.24	423,906
Spelt	18,809	18,434	6.77	124,786
Millet	30,907	29,839	9.87	294,570
Buckwheat	4,096	3,991	6.89	27,503
Rice	1,687	1,660	13.59	22,557
Others	101	101	....	....
Total	5,877,276	5,726,369	....	66,281,926

TABLE II. PRODUCTION OF CHIEF CEREALS
(In Thousands, i.e. 000 Omitted)

YEAR	PRODUCTION IN QUINTALS					TOTAL QUINTALS
	Wheat	Barley	Rye	Oats	Corn	
1921-25 average	15,990	3,054	1,506	2,997	27,789	51,336
1926	19,440	3,761	1,893	3,578	34,101	62,773
1927	15,395	3,146	1,504	2,920	31,085	44,050
1928	38,112	3,942	1,912	3,663	18,191	55,820
1929	25,855	4,119	2,100	3,508	41,477	77,059
1930	21,862	4,044	1,988	2,850	34,646	65,390

TABLE III. THE AREA AND PRODUCTION OF LEGUMINOUS CROPS FOR GRAIN, 1930

CROP	AREA PLANTED (Hectares)	AREA HARVESTED (Hectares)	YIELD (Quintals)	PRODUCTION (Quintals)
Beans	34,350	33,122	4.59	1,520,661
Peas	5,516	5,314	10.52	55,909
Lentils	3,011	2,919	8.03	23,446
Broad beans	4,334	4,209	12.04	50,665
Vetch	20,271	19,982	8.82	176,322
Others	2,402	2,205	....	....
Total	69,884	67,751	....	1,827,003

TABLE IV. AREA, YIELD AND PRODUCTION OF ROOT CROPS,¹ 1930

CROP	AREA PLANTED (Hectares)	AREA HARVESTED (Hectares)	YIELD (Quintals)	PRODUCTION (Quintals)
Potatoes	244,643	242,346	60.68	14,705,108
Mangels	26,117	25,915	135.31	3,506,617
Carrots	4,153	4,140	66.84	276,714
Turnips	2,928	2,910	87.10	253,447
Others	228	221	...	....
Total	278,069	275,532	....	18,741,886

¹ Other than sugar beets.

TABLE IV-A. POTATO PRODUCTION IN QUINTALS

YEAR	POTATOES PLANTED ALONE	POTATOES INTERPLANTED	TOTAL PRODUCTION
1921 to 1925 ¹	9,941,000	158,000 ²	10,099,000
1926	9,400,000	140,000	9,540,000
1927	10,087,000	123,000	10,210,000
1928	8,522,000	106,000	8,628,000
1929	16,227,000	96,000	16,323,000
1930	14,551,000	154,000	14,705,000

¹ Average. ² Average 1922 to 1925.

TABLE V. INDUSTRIAL CROPS, 1930

CROP	AREA PLANTED (Hectares)	AREA HARVESTED (Hectares)	YIELD (Quintals)	PRODUCTION (Quintals)
Sugar beets	53,185	51,652	144.21	7,448,853
Cotton	1,365	1,306	3.44	4,496
Flax for thread ¹	13,306	13,163	8.89	103,366
“ “ seed . . . . .	....	....	....	13,627
Hemp for thread ¹	38,122	37,492	9.38	330,810
“ “ seed . . . . .	....	....	....	20,717
Rape	12,233	11,625	6.09	70,776
Poppy for seed ²	14,783	12,700	1.58	19,329
“ “ opium . . . . .	....	....	....	706
Tobacco	16,007	15,369	9.27	142,422
Hops	3,225	2,889	6.08	17,568
Chicory	1,226	1,218	111.98	136,398
Others	4,964	4,859	....	....
Total	158,416	152,273	....	8,309,068

¹ Acreage for fiber and grain. ² Acreage for seed and opium.

TABLE VI. HAY AND FODDER CROPS, 1930

CROP	AREA SOWN (Hectares)	AREA HARVESTED (Hectares)	YIELD (Quintals)	PRODUCTION (Quintals)
Clover	105,729	105,276	35.92	3,781,271
Alfalfa	74,075	72,831	34.78	2,533,697
Others, including meadows	1,820,941	1,819,784	18.21	33,138,274
Total	2,000,745	1,997,891	19.95	39,453,242

TABLE VII. TREE FRUITS, 1930

KIND OF FRUIT	NUMBER OF TREES (Number)	YIELD PER TREE (Quintals)	PRODUCTION (Quintals)
Plums	44,718,112	10.32	4,616,001
Apples	7,134,471	18.90	1,348,130
Pears	3,770,743	10.21	385,033
Walnuts	2,094,982	16.23	340,120
Figs	833,643	15.90	132,533
Chestnuts	694,404	19.22	133,496
Olives	4,269,711	0.35	15,005
All others	5,453,944	....	....
Total	68,970,010	....	6,970,318

TABLE VIII. LIVESTOCK ON FARMS

(In Thousands, i.e. 000 Omitted)

YEAR	KIND OF ANIMALS					
	HORSES	ALL CATTLE	HOGS	SHEEP	GOATS	ALL POULTRY
1922 ¹	1,044	4,058	2,887	8,462	1,801	13,810
1923	1,063	3,870	2,497	7,639	1,730	14,196
1924	1,054	3,784	2,518	7,619	1,718	14,932
1925	1,106	3,768	2,802	7,907	1,811	16,198
1926	1,117	3,706	2,806	7,933	1,721	16,260
1927	1,120	3,729	2,770	7,736	1,739	16,279
1928	1,109	3,654	2,663	7,722	1,750	16,081
1929	1,140	3,728	2,675	7,736	1,804	17,516
1930	1,161	3,812	2,924	7,953	1,731	18,822

¹ Dec. 1, data.

TABLE IX. QUANTITY AND VALUE OF IMPORT AND EXPORT, 1921-1930
(In Thousands, i.e., 000 Omitted)

YEAR	EXPORTS		IMPORTS		DIFFERENCE IN VALUE EXPORTS MINUS VALUE IMPORTS (Dinars)
	Metric Tons	Value in Dinars	Metric Tons	Value in Dinars	
1921	1,583	2,460,737	733	4,122,097	- 1,661,360
1922	2,213	3,691,166	1,232	6,441,876	- 2,750,710
1923	3,025	8,048,843	1,123	8,309,635	- 260,792
1924	3,915	9,538,774	1,127	8,221,743	+ 1,317,031
1925	4,398	8,904,539	1,513	8,752,878	+ 151,661
1926	4,881	7,818,180	1,241	7,631,779	+ 186,401
1927	4,251	6,400,153	1,331	7,286,290	- 886,137
1928	4,526	6,644,609	1,505	7,835,326	- 1,190,627
1929	5,329	7,921,707	1,671	7,594,750	+ 326,957
1930	4,733	6,780,054	1,513	6,960,113	- 180,059
Total	48,854	68,208,852	13,049	73,156,487	- 6,929,685 + 1,982,050 - 4,947,635

TABLE X. EXPORT OF MOST IMPORTANT AGRICULTURAL AND FORESTRY PRODUCTS,
1930

	QUANTITY (Metric Tons)	VALUE (Dinars)
<i>Grain and grain products:</i>		
Wheat	252,407	474,110,000
Other small grains	5,069	7,274,000
Corn	503,475	547,696,000
Wheat flour	7,509	22,142,000
Bran	15,895	16,279,000
Total	784,355	1,067,501,000
<i>Other field crops and fruits:</i>		
Beans	21,042	96,315,000
Potatoes	1,831	1,765,000
Fresh and canned fruit	99,710	291,771,000
Dried prunes	7,634	45,543,000
Prune marmalade	2,139	11,519,000
Wine	12,400	48,398,000
Total	144,756	495,311,000
<i>Other plants and their derived products:</i>		
Medicinal plants	2,428	15,418,000
Hemp	8,371,842	85,225,000
Opium	36	27,078,000
Alcohol	2,189	13,738,000
Total	8,376,493	141,459,000

TABLE X — Continued

	NUMBER OF HEADS	VALUE (Dinars)
<i>Livestock:</i>		
Horses	29,590	61,855,000
Colts	204	225,000
Cattle	120,871	308,409,000
Calves	15,808	11,486,000
Hogs	243,338	284,571,000
Sheep and goats	717,110	117,785,000
Poultry	8,293 ¹	112,928,000
Total	1,126,921²	897,349,000
	QUANTITY (Metric Tons)	VALUE (Dinars)
<i>Meat and meat products:</i>		
Fresh meat	16,202	229,075,000
Miscellaneous meat products	501	11,684,000
Lard	118	2,008,000
Special butter (maslo)	297	8,073,000
Miscellaneous cheeses	135	1,737,000
Special cheese (Kashkaval)	1,939	33,780,000
Eggs	30,428	511,769,000
Skins	3,520	104,000
Total	53,140	798,230,000
<i>Wood, wood products:</i>		
For burning	412,640	79,085,000
For building material	1,166,231	1,156,908,000
Products	38,486	75,660,000
Railroad ties (oak)	2,117,034	115,274,000
" " (beech)	594,921	26,759,000
Total	4,329,312	1,453,686,000
<i>Tannin extracts:</i>		
Tannin extract: chestnut bark	4,964	24,968,000
" " oak bark	9,054	40,389,000
Total	14,018	65,357,000
<i>General total, all exports:</i>		
Metric tons	13,710,367	4,918,893,000
Heads of livestock	1,126,921	

¹ Metric tons. ² Exclusive of poultry.

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