TWENTY-NINTH

ANNUAL MEETING

- MINUTES and PROCEEDINGS -

INTERNATIONAL INN, WINNIPEG, MANITOBA

MARCH 4 - 6, 1970

- 0 -

I N D E X

Council Representatives 2
Officers 1970 3
Annual Meeting Guests & Consultants 4
Minutes 5
Budget 1970 14

Committee Reports

Financial Statement 18
Presidential 19
Secretary 20
Research 23
Publicity - Western Section 30
Eastern Section 31
Sales Factors 32
Promotion Report 36
Codex Alimentarius 38
Marketing 42
Canadian Association of Apiculturists 48
Grading 50
Canadian Honey Packers Association 52
Statistics 54
Magazine 55
Recommodations - Canadian Association of Apiculturists 57
Fairs and Exhibits 58
Apiculture Research Report 63

CANADIAN BEEKEEPERS' COUNCIL

1970 OFFICERS

President	Lou Truscott
Vice President	John Uhrin
Executive Member	Don Peer
Immediate Past President	Robert Asher
Executive Secretary	Hank Taylor

PAST PRESIDENTS

1940 - 41	-	W. R. Agar+
1942	-	S. M. Deschenes+
1943	-	J. W. Braithwaite+
1944	-	P. C. Colquhoun
1945	-	A. T. Brown
1946	-	V. E. Phillips+
1947 - 49	-	F. R. Garland
1950 - 51	-	J. N. Dyment
1952	-	P. Kowalski+
1953 - 54	-	W. H. Turnbull+
1955 - 56	-	H. C. Allen
1957 - 58	-	S. J. Lye
1959 - 65	-	V. Mesley
1966 - 67	-	E. J. Burnett
1968 - 69	-	R. Asher
1969 - 70	-	L. Truscott

HONORARY LIFE MEMBERS

C. B. Gooderham
J. N. Dyment
F. R. Armstrong
C. F. Pearcey
H. C. Allen
R. M. Pugh
F. R. Garland

PAST EXECUTIVE SECRETARIES

1940	-	W. T. Patterson
1941 - 48	-	R. M. Pugh
1949	-	W. G. Le Maistre+
1950 - 59	-	R. M. Pugh
1960 - 62	-	R. M. McKay
1962 - 69	-	J. E. King+
1969 - 70	-	H. R. Taylor

+ Deceased

CANADIAN BEEKEEPERS' COUNCIL

GUESTS & CONSULTANTS IN ATTENDANCE

ANNUAL MEETING - MARCH 4 - 6, 1970

INTERNATIONAL INN, WINNIPEG

J. Arnott	Orono, Ont.
R. Asher	Brooks, Alta.
C. Bird	Winterburn, Alta.
E. Bland	Prince Albert, Sask.
H. Bryans	Alvinston, Ont.
J. Corner	Vernon, B.C.
W. Daman	Ottawa, Ont.
G. Durnin	Rapid City, Man.
J. Edmunds	Edmonton, Alta.
F. Garland	Winnipeg, Man.
N. Guerin	Ottawa, Ont.
R. Hay	Scarborough, Ont.
M. Hodgson	Jarvis, Ont.
S. C. Jay	Winnipeg, Man.
S. Kreutzer	Amoronth, Man.
R. McMaster	Toronto, Ont.
D. McRory	Winnipeg, Man.
P. Pankiw	Beaverlodge, Alta.
C. Paradis	Girouxville, Alta.
P. F. Pawlowski	Edmonton, Alta.
E. Podolsky	Ethelbert, Man.
D. R. Robertson	Winnipeg, Man.
E. R. Smith	Ottawa, Ont.
P. Stevens	Ottawa, Ont.
J. Thomas	Winnipeg, Man.
G. Townsend	Guelph, Ont.
D. Wenger	Toronto, Ont.
K. Wilson	New Westminster, B.C.

CANADIAN BEEKEEPERS' COUNCIL

M I N U T E S

29TH ANNUAL MEETING

INTERNATIONAL INN, WINNIPEG, MANITOBA

Present:	L. Truscott (c)	J. Young
	R. Mallory	E. Burnett
	J. Uhrin	P. Yelle
	V. Mesley	G. Paradis
	J. Smith	W. Hamilton
	D. Peer	R. Bird
	F. Rathje	P. Burke
	C. Meilicke	H. Taylor (s)

President L. Truscott in opening the meeting, welcomed Council members, Council consultants and visitors. A minutes silence was held in respect for the passing of two members, J. E. King former Secretary of Council and J. P. Hodgson.

The Secretary read the notice of the meeting.

The President appointed the following Committees -

Nominations Committee	-	F. Rathje C. Meilicke J. Young
Scrutineers	-	W. Daman J. Arnott
Resolutions Committee	-	P. Burke D. Peer

1. Moved by E. Burnett, seconded by R. Mallory and CARRIED

   THAT the minutes be adopted as circulated and corrected.

   Finance Committee Chairman, R. Mallory asked the Secretary to present the audited financial statement with President L. Truscott to report on the promotion section of the statement.

2. Moved by J. Smith, seconded by D. Peer and CARRIED

   THAT the financial statement be tabled to 10:00 A.M. March 5, 1970

   President L. Truscott presented the report of the President.

3. Moved by L. Truscott, seconded by G. Paradis and CARRIED

   RESOLVED that the report of the President be accepted and included in the minutes.

   Secretary H. Taylor presented the report of the Secretary.

4. Moved by R. Bird, seconded by V. Mesley and CARRIED

THAT the report of the Secretary be accepted and included in the minutes.

R. Mallory presented the report of the Research Committee.

5. Moved by R. Mallory, seconded by J. Uhrin and CARRIED

THAT the report of the Research Committee be accepted and included in the minutes.

6. Moved by J. Smith, seconded by V. Mesley and CARRIED

THAT a Committee on Research be appointed by the President.

The President declared the meeting adjourned until 1:30 P.M.

WEDNESDAY MARCH 4TH - 1:30 P.M.

F. Rathje presented the report on Western Publicity

7. Moved by R. Bird, seconded by J. Uhrin and CARRIED

THAT the report on Western Publicity be accepted and included in the minutes.

P. Burke presented the report on Eastern Publicity.

8. Moved by G. Paradis, seconded by J. Young and CARRIED

THAT the report on Eastern Publicity be accepted and included in the minutes.

G. Townsend presented the report on Sales Factors.

9. Moved by R. Bird, seconded by V. Mesley and CARRIED

THAT the report on Sales Factors be accepted and included in the minutes.

President L. Truscott presented the Promotion Report.

10. Moved by G. Paradis, seconded by R. Bird and CARRIED

THAT the Promotion Report be accepted as presented and included in the minutes.

President L. Truscott vacated the chair to Vice-President R. Mallory.

L. Truscott in answer to questions from the floor presented a documented evaluation of increases in honey sales during the months of the 1969 promotion.

President L. Truscott resumed the chair.

D. Peer presented the report on Codex Alimentarius.

11. Moved by D. Peer, seconded by R. Mallory and CARRIED

THAT the Codex Alimentarius report be accepted as presented and included in the minutes.

R. Bird President of the Canadian Honey Packers Association had no report to present at this time, as his Association was still involved in meetings.

G. Paradis in answer to Mr. Bird's request for direction, asked that the Canadian Honey Packers Association come back to the meeting with a solution for a fair return to the beekeeper.

President L. Truscott in offering direction to R. Bird, suggested the following areas be discussed by the Canadian Honey Packers Association -

1. Promotion
2. Support of Council
3. Return to Beekeeper

W. Daman, Secretary-Treasurer of the Canadian Horticultural Council made a presentation on National Marketing Legislation and Boards. Discussion followed with W. Daman answering questions from the floor. A copy of Mr. Daman's presentation will be included in the minutes.

The President declared the meeting adjourned until 9:00 A.M. Thursday.

THURSDAY MARCH 5TH - 9:00 A.M.

Present:	L. Truscott	P. Yelle
	R. Mallory	G. Paradis
	J. Uhrin	J. Young
	R. Bird	F. Rathje
	V. Mesley	C. Meilicke
	W. Hamilton	E. Burnett
	J. Smith	D. Peer
	P. Burke	H. Taylor (s)

P. Burke presented the Canadian Apiculturist Association report.

12. Moved by E. Burnett, seconded by V. Mesley and CARRIED

THAT the Canadian Apiculturist Association report be accepted as presented and included in the minutes.

W. Hamilton presented the Grading Committee report.

13. Moved by J. Smith, seconded by F. Rathje and CARRIED

THAT the report on Grading be accepted as presented and included in the minutes.

J. Corner recommended that discussion on Grading should be added to the Grading Report and the report be done by E. Smith of the Canadian Department of Agriculture.

President L. Truscott presented the financial report.

President L. Truscott when questioned regarding the remaining funds of the U.K. Export Promotion Committee, stated these funds would be available to members of the Honey Exporters Committee on request. J. Smith requested that the minutes show this ruling from the chair.

D. Peer requested that Research be shown separately on the Financial Statement and that income contributions for research be devided as follows -

Guelph University	$650.00
University of Manitoba	$650.00

Council to provide up to $250.00 to each fund if the amount is not reached.

R. Asher stated that research money must be requested from the various areas.

14. Moved by J. Smith, seconded by R. Bird and CARRIED

THAT the financial report be tabled until 10:00 A.M. Friday.

R. Bird, President of the Canadian Honey Packers Association presented the Associations report.

15. Moved by R. Bird, seconded by R. Mallory and CARRIED

THAT the report of the Canadian Honey Packers Association be accepted as presented and included in the minutes.

R. Bird on behalf of Bee Cee Honey presented J. Smith with the Alberta Beekeeper of the year trophy.

E. Burnett on behalf of the Manitoba Honey Cooperative presented a souvenir to everyone present commemorating Manitoba's Centennial Year.

President L. Truscott delcared the meeting adjourned until 1:30 P.M.

THURSDAY MARCH 5TH - 1:30 P.M.

H. Taylor presented the report of the Statistics Committee.

16. Moved by R. Bird, seconded by J. Young and CARRIED

THAT the report of the Statistics Committee be accepted as presented and included in the minutes.

J. Smith and L. Truscott reported on the Tariff Committee.

L. Truscott reported on the sugar brief as presented to the Federal Government.

17. Moved by J. Smith, seconded by G. Paradis and CARRIED

THAT the report on Tariffs be accepted as presented.

V. Mesley presented the report of the Canadian Horticultural Council.

18. Moved by E. Burnett, seconded by C. Meilicke and CARRIED

THAT the report of the Canadian Horticultural Council representative be accepted as presented and included in the minutes.

J. Uhrin presented the report of the Magazine Committee.

19. Moved by R. Bird, seconded by C. Meilicke and CARRIED

That the report of the Magazine Committee be accepted as presented and included in the minutes.

20. Moved by D. Peer, seconded by W. Hamilton and CARRIED

Sincere appreciation to J. Arnott on behalf of the Canadian Beekeepers' Council for his excellent job in editing the Canadian Beekeeping magazine and that J. Uhrin consider the recommendations in Mr. Arnott's report be considered for presentation to the Executive for action.

J. Corner presented the Fairs and Exhibition report.

21. Moved by R. Bird, seconded by V. Mesley and CARRIED

THAT the Fairs and Exhibition report be received as presented and included in the minutes.

Resolutions Chairman P. Burke presented the Resolutions as submitted to his Committee to date.

R. Bird as seconder in agreement with the mover E. Burnett wished that Resolution #52 as tabled at the 1969 Annual Meeting to the 1970 Annual Meeting be withdrawn.

P. Burke, chairman of the Resolutions Committee presented the following Resolutions

V. Mesley in agreement with his seconder withdrew his resolution on Marketing for redrafting and representation.

22. ANNUAL MEETING DATE

WHEREAS the holding of the Annual Meeting of the Canadian Beekeepers Council in March does not leave sufficient time for Committee work before the next active beekeeping season.

RESOLVED that the Annual Meeting of Council be scheduled for the second week in December each year.

Moved by V. Mesley, seconded by G. Paradis and DEFEATED

The President declared the meeting adjourned until 8:00 P.M.

THURSDAY MARCH 5TH - 8:30 P.M.

P. Burke, Chairman of the Resolutions Committee, presented the following Resolutions -

23. DISEASES OF HONEYBEES

WHEREAS there is an insidious disease affecting colonies of honeybees in many areas of Canada which manifests itself in the disappearance of the adult bees just prior to the main nectar flow and in conditions such as "Autumn Collapse" in which the adult population is drastically reduced

RESOLVED that the Canada Department of Agriculture investigate thoroughly this "disease" of honey bees and make recommendations as to its effective control

Moved by P. Burke, seconded by D. Peer and CARRIED

24. THAT the resolution on Levy Collection be tabled until the next resolution is dealt with.

Moved by D. Peer, seconded by G. Paradis and CARRIED

25. THAT the motion on Grading Legislation be tabled until resolution #29 is dealt with.

Moved by D. Peer, seconded by L. Truscott and CARRIED

26. RESEARCH ON HONEY COMPOSITION AND SHELF LIFE

WHEREAS research is needed to determine commercially practical methods of honey analysis to determine floral sources as well as honey composition.

WHEREAS research is needed to determine methods of processing and handling honey to increase shelf life of both liquid and granulated packs.

RESOLVED that the Canadian Beekeepers Council request and urge that such research be conducted.

Moved by P. Burke, seconded by D. Peer and CARRIED

27. LEVY

WHEREAS the Canadian Honey Packers Association have recommended that Packers be required to contribute to Council on the basis of a handeling charge of 65¢ per barrel or its equivalent on other size containers and that this be contributed to the Canadian Beekeepers Council in lieu of levy.

RESOLVED that the Canadian Beekeepers Council implement levy collections on the above basis for honey marketed thru contributing packers and on an equivalent basis for all other honey

Moved by R. Bird, seconded by D. Peer and CARRIED

28. NATIONAL MARKETING BOARD

WHEREAS the marketing of Canadian Honey may be improved by the formation and operation of a National Honey Commission or Board

RESOLVED that a committee be appointed by the Canadian Beekeepers Council to work with the marketing committee of the Canadian Horticultural Council to study and formulate a plan which may be suitable to the Canadian Beekeeping Industry and report and make recommendations to the next Annual Meeting of the Beekeepers Council

Moved by V. Mesley, seconded by R. Mallory and CARRIED

29. NEW CLASS OF HONEY

THAT Council representatives make the necessary representation to the Federal Government, so that immediate action be taken to implement resolutions #34 of the 1964 Minutes of the Canadian Beekeepers' Council in Kemptville and #56 of the 1969 Annual Meeting minutes.

An amendment moved by J. Smith, seconded by R. Bird that resolution #29 be referred to a committee to report to Council was defeated.

Moved by P. Yelle, seconded by G. Paradis and CARRIED

30. UNIFORM GRADING REGULATIONS

WHEREAS the Canadian Beekeepers Council is concerned that Provincial and Federal Grading regulations are at variance and,

WHEREAS furthur changes may increase such variations and,

WHEREAS such changes hinder effective honey marketing throughout Canada.

RESOLVED that the Canadian Beekeepers' Council strongly support uniform grading legislation, and take all necessary action to obtain such uniformity in cooperation with the Uniform Legislation Committee of the Canadian Horticultural Council.

Moved by W. Hamilton, seconded by J. Smith and CARRIED

31. EASTERN AND WESTERN CONFERENCE

WHEREAS the philosphy of and the approach to problems of the industry from a point east of the Ontario/Manitoba border and west of that border differs in many matters affecting the Industry.

WHEREAS the Canadian Beekeepers' Council as presently constituted has not presented a united front nor served the industry well, maybe enhanced and be a more viable organization.

RESOLVED that the Canadian Beekeepers' Council form an Eastern and Western Conference, each with a financial responsibility to the parent body of the Canadian Beekeepers' Council, and such other obligations as may be mutually agreed upon, and with representation, offices and officers as presently constituted.

Moved by J. Smith, seconded by D. Peer and DEFEATED

President L. Truscott declared the meeting adjourned until 9:00 A.M.

FRIDAY MARCH 6TH - 9:40 A.M.

Present:

L. Truscott (c)	J. Young
R. Mallory	E. Burnett
J. Uhrin	P. Yelle
V. Mesley	G. Paradis
J. Smith	W. Hamilton
D. Peer	R. Bird
F. Rathje	P. Burke
C. Meilicke	H. Taylor (s)

P. Burke, Chairman of the Resolutions Committee presented the following resolutions -

32. BEEKEEPING EDUCATIONAL INFORMATION

THAT the Canadian Beekeepers' Council request that the Canada Department of Agriculture through its information division make available for use in public schools, photographs relating to the Canadian Beekeeping Industry in a format similar to their photographic information available on "Maple Syrup" and Northern Agriculture.

Moved by E. Burnett, seconded by R. Mallory and CARRIED

33. RESEARCH GRANTS

THAT Council agree to support research in the amount of five hundred dollars $500.00 divided equally between Eastern and Western research establishments, and furthur agreed that all monies received and designated as to East or West be so allocated to respective areas.

Moved by J. Uhrin, seconded by L. Truscott and CARRIED

34. PESTICIDES

WHEREAS Beekeepers are experiencing financial loss from the application of pesticides.

RESOLVED that all pesticides be labled "Injurious to Honeybees" or "Not Injurious to Honeybees" as the case may be, and if injurious - instructions for use be provided on the label.

Moved by G. Paradis, seconded by P. Yelle and CARRIED

35. POSTAL INSURANCE ON BEE MOVEMENT

WHEREAS there has been a problem with insuring shipments of Queens and Bees in the mail by air and truck, through the Canadian and United States Postal Departments.

RESOLVED that the Council Executive and Secretary look into this problem and try to obtain a policy agreeable by both Canadian and United States Postal Departments that would give adequate insurance coverage to shipments of Bees and Queens between the two countries.

Moved by G. Paradis, seconded by R. Asher and CARRIED

N. Guerin, of the Federal Department of Industry, Trade and Commerce presented a report on the United Kingdom Honey Market, report is contained in the minutes of the Annual Meeting.

36. COUNTRY OF ORIGIN

WHEREAS at present, federal import regulations require that packages containing produce imported into Canada shall be clearly marked to show the name of the country of origin.

WHEREAS some Provinces in Canada are also enforcing country of origin markings on packages containing imported produce repacked in Canada.

WHEREAS the Canadian Beekeepers' Council again affirms its position as uniformity of legislation all across Canada is concerned.

RESOLVED that the Canada Department of Agriculture be requested to establish a regulation requiring country of origin markings on consumer packages containing imported honey repacked in Canada.

Moved by G. Paradis, seconded by P. Yelle and CARRIED

37. LEVY

WHEREAS various packers have deducted levy from honey bought in Manitoba.

RESOLVED that Council take action to obtain the levy which has been shown as deducted on beekeepers statements.

Moved by V. Mesley, seconded by J. Uhrin and CARRIED

38. POLLINATION FEES

WHEREAS it is of increasing importance that the Canadian Beekeeping Industry be in a strong position to provide adequate pollination for the increasing oil seed crops and forage seed crops, and to perform this necessary function so that the position of Canadian Agriculture in general may be assisted in preventing further decline.

WHEREAS fees for pollination of most Agriculture Crops are not generally available to Beekeepers.

RESOLVED that serious consideration be given to this matter and that adequate support be established, so the beekeeping industry will be enabled to perform this necessary function.

Moved by V. Mesley, seconded by G. Paradis and CARRIED

39. LEVY

RESOLVED that the Canadian Beekeepers' Council return to the Provincial Associations 40% of the 65¢ per barrel or the equivalent amount on other size containers to go into effect on the 1970 crop year (The rebate will be to the Provincial Association of the Province in which the honey was produced).

Moved by D. Peer, seconded by W. Hamilton and CARRIED

President L. Truscott declared the meeting adjourned until 1:30 P.M.

FRIDAY MARCH 6TH - 1:30 P.M.

P. Burke, Chairman of the Resolutions Committee presented the following resolutions.

40. 3-lb HONEY CONTAINER

WHEREAS there appears to be a need for a 3-lb. size honey container in the marketing of honey in Canada.

RESOLVED that provision be made for a 3-lb. size container on an experimental basis.

Moved by V. Mesley, seconded by L. Truscott and CARRIED as amended

Amendment- Following the same basis as that allowed in Ontario and for movement to and for sale in Ontario only.

Moved by D. Peer and seconded by R. Mallory CARRIED

P. Burke wished it noted in the minutes that he abstained from voting on both motion #40 and the amendment.

41. APPRECIATION

THAT the Secretary of Council convey the appreciation of the Beekeepers to the following - The Canadian Honey Queen, The Princesses and Prince. The Canadian Association of Apiculturists, The Canadian Honey Packers Association. Dr. P. Pankiw, Dr. Siddiqui, Dr. Gochanauer, Dr. R. Boch, Hotel Management and staff, Mr. E. Smith, Mr. N. Guerin, Mr. P. Stevens, Dr. C. Jay and staff.

Moved by D. Peer, seconded by R. Bird and UNANIMOUSLY CARRIED

42. RESEARCH PRIORITIES

THAT the Canadian Association of Apiculturists report on recommendations to the Federal Government on research priorities be received

Moved by E. Burnett, seconded by J. Uhrin and CARRIED

D. Peer recommended that order of priority of the Canadian Association of Apiculturists report be changed so that "F" is moved up between "A" and "B"

J. Smith requested a closed session one half hour after the banquet.

R. Mallory presented the financial report

43. FINANCE

THAT the financial report on the National Honey Promotion be received

Moved by L. Truscott, seconded by R. Mallory and CARRIED

44. THAT the audited Financial Statement be received

Moved by D. Peer, seconded by E. Burnett and CARRIED

45. THAT an interim statement covering the period of 1969 through to April 30, 1970 be circulated

Moved by D. Peer, seconded by L. Burnett and CARRIED

R. Mallory presented the 1970 Budget

BUDGET 1970

INCOME		$15,000.00
EXPENDITURES		
Administration charges	$5,000.00	
TRAVEL		
Executive Secretary	400.00	
Annual Meetings	1,000.00	
Committee Meetings	500.00	
Executive Meetings	2,000.00	
	$3,900.00	
CONTRIBUTIONS		
Audubon Society	10.00	
British Research Association	150.00	
Apimondia	70.00	
Research (a) University of Guelph	250.00	
(b) University of Manitoba	250.00	
C.H.C. Membership	500.00	
	$1,230.00	
GENERAL		
Steno Assistance for President	50.00	
Promotion	1,200.00	
Stationary	400.00	
Awards	200.00	
Postage	400.00	
Telephone & Telegraphs	400.00	
Miscellaneous	350.00	
	$3,000.00	
TOTAL EXPENDITURES		$13,130.00
EXCESS INCOME OVER EXPENDITURE		$ 1,870.00

46. THAT the 1970 Budget be received as presented.
Moved by V. Mesley, seconded by G. Paradis and CARRIED

47. THAT the 1970 Budget be adopted as presented.
Moved by E. Burnett, seconded by R. Mallory and CARRIED

ELECTIONS

President L. Truscott called upon J. Corner to act as Election Officer.

Scrutineers - D. Robertson and J. Arnott

J. Corner called on F. Rathje for a report of the Nominating Committee.

F. Rathje presented the following slate of candidates -

President	-	L. Truscott
Vice-President	-	J. Uhrin
Executive Director	-	P. Burke

V. Mesley nominated D. Peer for President and D. Peer declined the nomination.

48. THAT nominations for the position of President be closed.
Moved by R. Mallory, seconded by W. Hamilton and CARRIED
L. Truscott was declared President.

49. THAT nominations for the position of Vice-President be closed.
Moved by E. Burnett, seconded by J. Smith and CARRIED
J. Uhrin was declared Vice-President
P. Burke nominated J. Smith for Executive Director
L. Truscott nominated D. Peer for Executive Director

50. THAT nominations for Executive Director be closed.
Moved by R. Mallory, seconded by D. Peer and CARRIED
An election was held and D. Peer was named Executive Director.

51. THAT the ballots be destroyed.
Moved by R. Bird, seconded by G. Paradis
President L. Truscott resumed the chair
President L. Truscott declared the meeting adjourned until one half hour after the evening banquet, at which time the first half of the meeting would be a closed session.

FRIDAY MARCH 6 - 9:30 P.M.

L. Truscott called the closed session to order and it was requested that Past President R. Asher be present.

52. RESOLVED that the firm of Geo. A. Welch and Company be appointed auditors for the coming year.

Moved by D. Peer, seconded by R. Mallory and CARRIED

53. RESOLVED that the Canadian Horticultural Council be reappointed to conduct the Canadian Beekeepers' Council secretarial duties during the coming year.

Moved by E. Burnett, seconded by R. Bird and CARRIED

54. ALL monies of the Canadian Beekeepers' Council of different areas such as Research, Promotion, etc. which are collected for purposes other than general Council expenses be kept in separate accounts.

Moved by D. Peer, seconded by R. Mallory and CARRIED

55. THAT we appreciate the services of the Canadian Horticultural Council in these trying years and that we hope that Mr. H. Taylor will continue as our Executive Secretary.

President L. Truscott was asked to write the Canadian Horticultural Council thanking them for their past services.

56. RESEARCH CONFERENCE

THAT the Canadian Association of Apiculturists report as received be used as a guideline to Industry in its representation to the Federal Government Conference on research and order of priority be that "F" be moved between "A" and "B", and that protection of bees from pesticides be included and placed after polination for order of priority.

Moved by R. Mallory, seconded by J. Uhrin and CARRIED

57. PROMOTION

REQUEST the Canadian Honey Packers Association to attempt the organization of a Promotional Program.

Moved by E. Burnett, seconded by J. Smith and CARRIED UNANIMOUSLY

58. ANNUAL MEETING SITES

The site of the 1971 Annual Meeting be Victoria, British Columbia.

Moved by E. Burnett, seconded by R. Bird and CARRIED

59. The site of the 1972 Annual Meeting be Montreal, Quebec.

Moved by P. Yelle, seconded by D. Peer and CARRIED

60. 3-LB. HONEY CONTAINER

THAT the Canadian Beekeepers Council respectfully request the Ontario Department of Agriculture permit other Honey Packers in Canada the privilege of marketing 3-lb. containers of honey in Ontario.

Moved by D. Peer, seconded by R. Mallory and CARRIED

P. Burke wished his abstinence recorded.

61. THAT V. Mesley be Council's Representative to the Canadian Horticultural Council.

Moved by F. Rathje, seconded by R. Bird and CARRIED

President L. Truscott appointed V. Mesley Chairman of the Marketing Committee with power to add.

62. THAT representation of Saskatchewan Honey Cooperative on Council be retained after the Amalgamation with the Manitoba Honey Cooperative

Moved by C.Meilicke, seconded by R. Mallory and CARRIED

63. THAT the meeting be adjourned. Time 12:00 P.M.

Moved by R. Bird, seconded by J. Smith and CARRIED

THE CANADIAN BEEKEEPERS' COUNCIL

FINANCIAL STATEMENT

as at December 31, 1969

THE CANADIAN BEEKEEPERS' COUNCIL

STATEMENT OF ASSETS AND LIABILITIES

as at December 31, 1969

			Comparative Dec.31/68
ASSETS			
Cash in bank		$ 1,709.34	$ 6,099
Government of Canada bonds - 4¼% - due 1972 par at cost		-	5,000
Accrued interest		-	70
			5,070
Deficit, National Honey Promotional Fund - per statement	23,866.46		
less Owing to R. G. Evans & Associates Marketing Agency Ltd.	19,943.82		
		3,922.64	
		5,631.98	11,169
LIABILITIES AND SURPLUS			
Accounts payable and accrued liabilities		1,880.71	1,870
Special Funds			
Honey Export Promotional Fund	1,783.25		621
National Honey Promotional Fund	-		3,999
		1,783.25	4,620
		3,663.96	6,490
Surplus			
Balance, December 31, 1968	4,679.36		11,559
deduct:			
Loss on disposal of Government of Canada bond	443.40		
Excess of Expenditure over Income for year	2,267.94		6,880
	2,711.34		
Balance, December 31, 1969		1,968.02	4,679
		5,631.98	11,169

We have examined the books and records of your Council for the year ended December 31, 1969. As in similar organizations, it was not possible to verify the revenue from all sources, such income being recorded as received.

Subject to the foregoing we report that, in our opinion, the above Statement of Assets and Liabilities and attached Statement of Income and Expenditure are properly drawn up as to show a true and correct view of the state of the Council's affairs at December 31, 1969, and the result of its operations for the period ended on that date, according to the best of our information and the explanations given to us and as shown by the books.

GEO. A. WELCH & COMPANY.

Ottawa, February 25, 1970.

CHARTERED ACCOUNTANTS.

THE CANADIAN BEEKEEPERS' COUNCIL

STATEMENT OF INCOME AND EXPENDITURE

for year ended December 31, 1969

				Comparative Dec.31/68
Income:				
Receipts from levy:				
British Columbia beekeepers'		5.00		$ 258
Alberta beekeepers'		3,646.00		2,200
Saskatchewan beekeepers'		1,880.10		194
Manitoba beekeepers'		1,600.00		-
Ontario beekeepers'		3,116.10		1,855
Quebec beekeepers'		188.90		-
Maritime beekeepers'		58.07		-
			10,494.17	4,507
Donations for Eastern Research			200.00	570
Donations for Western Research			125.00	400
Bond interest			35.45	212
			10,854.62	5,689
Expenditure:				
Administrative cost		4,000.00		4,000
Travelling expense:				
Executive Secretary	66.20			175
Annual meeting	1,669.60			612
Executive	3,370.74			2,147
Peer-Graham Committee meetings	-			1,185
		5,106.54		4,119
Contributions and fees:				
Apimondia	60.59			61
Audubon Society of Canada	10.00			10
Bee Research Association	150.00			50
University of Guelph Research Fund	820.00			820
University of Manitoba Research Fund	650.00			650
Canadian Horticultural Council	500.00			400
		2,190.59		1,991
Awards		159.94		267
Postage		267.05		125
Publicity		100.00		1,200
Stationery and Printing		333.38		232
Telephone and telegraph		540.11		364
Donation - Canadian Beekeeping magazine		100.00		-
Miscellaneous		324.95		271
			13,122.56	12,569
Excess of Expenditure over Income for year			2,267.94	6,880

THE CANADIAN BEEKEEPERS' COUNCIL

STATEMENT OF HONEY EXPORT PROMOTIONAL FUND

for year ended December 31, 1969

Balance, December 31, 1968		$ 621.57
add:		
Contribution in year:		
Interprovincial Honey Sales Co-operative		4,750.00
		5,371.57
deduct:		
Expenditures:		
Co-ordinator's salary and promotional expenses	1,248.32	
U.K. trade magazine advertising	2,340.00	
		3,588.32
Balance, December 31, 1969		1,783.25

THE CANADIAN BEEKEEPERS' COUNCIL

STATEMENT OF NATIONAL HONEY PROMOTIONAL FUND

for year ended December 31, 1969

Balance, December 31, 1968			$ 3,998.49
add:			
Contributions in year for 1968 - 9 promotion:			
B. C. Beekeepers' Association	100.00		
Kidd Bros. Produce	100.00		
Central Alberta Dairy Pool	1,540.00		
Saskatchewan Beekeepers' Association	2,000.00		
Manitoba Beekeepers' Association	300.00		
Billy Bee Honey	1,200.00		
Hodgson Apiaries	400.00		
Ontario Beekeepers' Association	1,200.00		
Ontario Honey Producers Co-op	1,050.00		
R. W. Maguire	100.00		
Doyan & Doyan	500.00		
L'Association des Apiculteur Prof.	100.00		
Kraft Foods Ltd.	500.00		
United Woodville	100.00		
Canadian Honey Packers Association	400.00		
Government of Canada	5,000.00		
		14,590.00	
add:			
Contributions in year for 1969 - 70 promotion:			
Bee Cee Honey	500.00		
Hodgson Bee Supplies	500.00		
Alberta Beekeepers' Association	2,000.00		
Central Alberta Dairy Pool	3,000.00		
Hamilton Bee Ranch	300.00		
Saskatchewan Beekeepers' Association	1,500.00		
Interprovincial Co-operative	5,000.00		
Government of Canada	5,000.00		
		17,800.00	
			32,390.00
			36,388.49
deduct:			
Expenditures:			
Promotion expenses - 1968 - 69 campaign		40,839.95	
- 1969 - 70 campaign		19,415.00	
			60,254.95
Deficit, December 31, 1969			23,866.46
Represented by:			
Accounts payable - R. G. Evans & Associates Marketing Agency Limited		19,943.82	
Due to General Fund		3,922.64	
			23,866.46

PRESIDENT'S REPORT 1969

A year ago I stood before this representative body of the Canadian Beekeeping Industry as your newly elected President.

I was proud of the fact that I had achieved the highest elective position in the Canadian Beekeepers Council and concerned with the possible demands and responsibilities of this office.

Now a year later I must report that I am no longer proud to represent the Canadian Industry but rather a little embarrassed when I realize that we came very close to being a leader in agricultural organizations with complete unity across Canada, but now we have slipped so far behind.

My concern now is whether the Canadian Beekeeping Industry was actually worth being concerned about.

Unity was a dream. Stabilized and increased pricing procedures was a figment of my imagination.

With 2 pounds at 55¢ in the East and 4 pounds at 95¢ in the West and with returns to producers from 11¢ to 14¢ per pound we can possibly take some strength from the accepted fact that "among beekeepers there are no athiests" therefore, you can join me in the faith that conditions will improve.

Somebody should be concerned with the fact that we are a failing Industry. -

1. Returns are dropping in times of rapidly increasing costs.
2. Export markets are slipping away to more progressive and aggressive countries.
3. Canadian consumption is not keeping pace with the increase in population.
4. National promotion is unworkable.
5. The U.K. promotion program was not successful.

We have no idea where we are going, and whether there is a shortage or a surplus of honey at the present time. I would sincerely hope that this organization at this time make a very honest evaluation of this organization, represented organizations and individuals and groups within the Industry. An aim must be established and responsibilities of all individuals, offices, etc. must be determined and accepted.

The support of the many departments of the Dominion Department of Agriculture has been greatly appreciated over the past year and we welcome Mr. N. Guerin, Industry, Trade and Commerce in his new responsibility with the Honey Industry.

Complete unity has not prevailed within the Executive on all issues but their support where they were agreeable was appreciated. I must commend our Executive Secretary, H. Taylor for his ability, enthusiasm and concern for the Industry and also Mr. W. Daman the newly appointed Secretary-Treasurer of the Canadian Horticultural Council.

Respectfully submitted,

L. W. Truscott

REPORT OF THE SECRETARY

Mr. President, Delegates, Gentlemen:

It is my duty to present the Report of the Secretary, which outlines the activities of the Council during the last fiscal year.

The year 1969 was marred with the sudden passing in March of John E. King, former Secretary-Treasurer of this Council and Secretary-Treasurer of the Canadian Horticultural Council. John's dedication to the Canadian Honey Industry went far above and beyond the call of duty, he rallied the Industry in some of its darkest hours, and truly left a mark that will long be remembered.

This year, your Executive Committee held one meeting in Ottawa and two telephone conferences. Several meetings were held in Ottawa with your President, resulting in visits with various departments of Government seeking both answers and assistance in the areas of promotion, research and tariffs. In November, President L. Truscott and Mr. D. Peer, met in Ottawa with the Canada Department of Agriculture to discuss both research and codex alimentarius.

Throughout the year, bulletins eminating from your National Office in Ottawa on a regular basis kept the Industry abreast of the World Honey Market, Canadian Stocks on Hand and other information pertinent to the Industry. Hardly a day passed when correspondence was not issued from the National Office, regarding various aspects of the Canadian Honey Industry.

Council finances in 1969 reached an all time low, declining levy collections over the past three years, resulting in the use of all reserves. Had operations been carried out under any other roof than the Canadian Horticultural Council, it would have been necessary to lock the doors. It should be noted that trade associations to be on a financially sound basis should have a bank balance equivilant to two years budget of net expenditures.

As we enter into the seventies, I think we should only look ahead and lay the foundation for a solid future in the Industry. In 1969, the Canadian Agricultural Congress was held in Ottawa, at which time a very comprehensive paper dealing with supply Management and National Marketing Boards was presented by the Federal Task Force on Agriculture. To date no Federal legislation has been put forth on National Marketing Boards, but it is anticipated this will be presented at this years legislature. Perhaps the Canadian Honey Industry could become a leader. At last year's Annual Meeting, a resolution calling for a study of a National Marketing Board was tabled. The prime objective of a National Marketing Board would be -

1) Give greater control and regulation over marketing in order to maintain and raise prices to the beekeepers.

2) Secure greater stability of prices.

3) Increase the volume of sales.

4) Secure equitable prices to all producers at compensatory levels. Is this not what the Industry deserves?

Action on Resolutions

Please refer to page 7 of last years' minutes and proceedings.

#14 - Imports and Exports on Statistical Report

The word "Canadian" has been placed before import and exports as requested in the motion.

#36 - Government Assistance to Beekeepers

On July 29, 1969, your Executive met with Mr. S. B. Williams to find out whether or not assistance could be extended to the Industry as outlined in Resolution #36 (1969 Annual Meeting).

a) Agriculture Products Board

Mr. Williams stated that this Act clearly outlines, that stocks held by the Government is not a workable proceedure, and could mean disaster for the Industry.

b) Agriculture Products Cooperative Marketing Act

Workable proceedure for this Act is as follows - Government may grant up to 80% of the last three years price average. Loans are and have been available as requested.

c) Agricultural Stabilization Act

Would be extremely difficult to prove that Honey needs a direct subsidy and there is no evidence to support the need for same.

#37 - Bees Wax Export Statistics

Bees Wax is not reported separately by the Dominion Bureau of Statistics as all wax exports are entered collectively and to break down into a single commodity is virtually impossible.

#38 - Canadian Beekeeping Magazine

As requested a vote of thanks on behalf of the Canadian Beekeepers' was sent to Mr. J. Arnott, Editor of Canadian Beekeeping along with a cheque in the amount of $100.00

#39 - Information to "L'Abeille Et L'Erable"

The French beekeeping magazine was placed on the mailing list to receive all releases and information emanating from the National Office.

#41 - Levy on Imported Honey for Promotion Purposes

Your Executive met with the Canada Department of Agriculture who advised that to their knowledge no such legislation is in effect and implementation of such legislation would be quite complicated.

#48 - Restriction of the word "Canada" in Grade Designation to Canadian Produce only

Your Executive Committee met with the Canada Department of Agriculture who informed the Committee that such restrictions of the prefix "Canada" would be extremely difficult as Federal government has tried to educate consumers that Canada #1 is strictly a grade designation, not country of origin.

#50 - Country of Origin

Mr. S. B. Williams, Deputy Minister of Agriculture was reluctant to agree "country of origin" is advantageous to the Industry. As product could not keep separate identity. Example - In the case of the honey Industry, where due to a dark honey surplus, white is imported for blending purposes.

General

I have referred very briefly to some of Council's activities during the last year and others will be covered in detail in the various Committee Reports. Your Council continues to act as the Industry's spoksman at the National level and enjoys the fullest cooperation of the Officials of the numerous Departments of Government and other authorities with whom we have frequent contact. The maintenance of this confidence is most valuable and is jealously guarded and extremely appreciated. Another busy year in Council History is now completed and its success is due to the fine cooperation among the Officers, Committee Members and staff, to whom I owe a deep gratitute and I express my appreciation.

Respectfully submitted,

H. R. Taylor

RESEARCH REPORT

The President of the Canadian Beekeepers' Council has asked that I provide a summary of the last ten years of research accomplishments by the Apiculture unit at Ottawa. These are presnetly available, in more or less scattered form, in the reports of the Canadian Association of Apiculturists or of Council, or both. However, a summary may give a review of what has been done and provide guidance to those looking ahead to the planning of program and staffing of apiculture for the future.

In 1959, the CDA research effort was reorganized. The Apiculture Division of the Experimental Farms Service became the Apiculture Section of the Entomology Research Institute. In this move, the Ottawa unit was relieved of its former task of coordinating various testing, demonstration and experimental units at branch farms and stations across the country, and became responsible solely for the research done at Ottawa. In 1961, I was appointed as head of the section.

About the same time, the new Food Research Institute was formed. Responsibility for honey research was placed with this group, under the leadership of Dr. Siddiqui. The latter was housed with us in the refurbished and expanded quarters near the outskirts of the Experimental Farm.

A gradual shift occurred in type of research from field tests and comparisons of methods to more demanding and complicated microbiological, chemical, and behavioral studies on bee diseases, honey, and bee behavior.

Major Research Areas:

1. Early studies on biology and behavior by Dr. Boch included studies on the weight of the queen and her fecundity; there was a positive relationship, in contradiction to findings by others. There was a study on bee pollination of safflower, a developing oilseed crop; the USDA has recently carried out further studies on this crop.

2. Dr. Furgala has been hired primarily to do pollination work on legumes, the subject of his thesis; however, with the deaths in a relatively short period of Braun, Jamieson and Austin, the facilities for this work were not available, and he become interested in nosema research. Fumagillin as an active control chemical had been discovered at Ottawa, but the methods for testing of its biological activity against nosema were crude and the chemical assays were misleading; hence he developed a method for careful quantitative inoculation of test bees, and for assaying effects of fumagillin and other drugs on such test bees.

   He was able to show singly and with others of the section that fumagillin was highly active, while a European preparation, Nosemack was not; that fumagillin fed as Fumidil B was stable for long periods when stored in syrup, especially in the cool temperatures of the wintering colony; that it gave a full winter's protection when fed at 200 milligrams equivalent fumagillin in 2 gallons of syrup to full colonies; that it did not interfere with sodium sulfathiazole or vice versa; that the best formulation for control was in thick syrup and not

-/2

in solid formulations such as candied sugar or icing sugar dusts.

3. Consistent reports came from beekeepers concerning various virus-like diseases of economic importance in the St. Lawrence Valley area. Examinations for other adult diseases, such as nosema or bee poisons and other causes were negative. In 1962 I sent on request a sample of sac brood to Dr. Bailey, in England, who was just beginning his virus studies there. The acknowledgement of my sample in the paper from Bailey's work caught the eye of Dr. P. E. Lee, then of Plant Research Institute, Ottawa. He was working in electron microscopy of insect-borne plant disease agents. He and Dr. Furgala quickly found that sac brood virus was a specific virus which developed mainly in the fat body or food storage area of the larva, but which also could be carried by the adult bee.

They quickly showed also, that paralysis virus of adults was confined to the nerve tissue, which would explain the paralytic effects. Paralyzed bees from the above area were shown to contain the virus. Recent bee journal articles and foreign workers at the recent Congress alike have pointed out that these virus diseases may become more important and difficult to control in the future than the common bacterial infections with which we are familiar.

4. At about the same time, Dr. Boch had begun to study the effect of the odors of bees which control their food gathering, stinging, and general colony behavior. With Dr. Shearer, of Analytical Chemistry he found, tested and described the scents produced by the scent gland of bees which control homing of bees to new hive sites (such as a newly installed package of bees) and the materials in the sting gland which alert bees to the presence of a potential enemy. This odor is the cause of successive stings beekeepers receive after the first sting is given. More recently, he has worked on the queen scent or pheromone, the essential odor of the queen which permits tracking of a virgin queen by drones during the mating flight. In the latter case, he has shown with Drs. Doolittle (USDA) and Blum (University of Georgia) that the queen scent is highly active and specific; it is not masked by other, closely related chemicals. This fact allows the worker to continue studies with impure substances. There is evidence that many defects in developing colonies are related to presence or absence of this material.

5. The same basic approach - that is, response of bees to an odor - has been followed by Boch and associates in studies of the attractant in pollen. Artificial foods with a nutritional value equal to pollen are often not accepted by bees, possibly because of lack of the attractant. Boch's studies have shown that the yellow color; an unusual fatty acid; and perhaps other, yet unidentified substances influence bees to collect natural pollen. Identification, synthesis and use of these materials in pollen substitutes would provide the package bee producer as well as the honey producer with more controlled and rapid colony growth. This work was done with the Food Research Institute and workers at NRC.

6. Control of bacterial diseases of bees, while commonly maintained with antibiotics, has some as yet unknown hazards. Treatment of infected colonies runs some risk of developing resistant bacteria as is common in human medicine; it also may contribute to contamination of the honey produced. The present trend in chemotherapy is away from sulfathiazole because of its long stability and lack of action on European foulbrood. Tetracycline drugs have in many areas replaced the sulfas. Studies at Ottawa (in conjunction with provincial apiarists) have included work on the stability of Terramycin in syrup in the wintering colony in British Columbia and sensitivity studies on bacteria from colonies undergoing treatment in Manitoba, Saskatchewan and British Columbia. The results generally showed that Terramycin and tetracycline are stable in syrup in colonies kept in the Okanagan district through the winter time and can give protection until the new nectar flow becomes available. No evidence of Terramycin resistance of B. larvae strains obtained from treated colonies has yet been obtained. This is important since the Okanagan area promises to become a major wintering area with increased opportunity for spread of disease.

7. Another approach to control of bacterial infections has been examined. Gamma radiation of full combs in a large treatment chamber at Atomic Energy of Canada, Ltd. in Ottawa produced effective decontamination at a level of 0.2 megarad, about 0.1 of the level needed to produce complete sterility. Similar tests using European foulbrood contaminated combs, however, indicated this infection was more resistant to the effects of the radiation. The latter was done in cooperation with Dr. Pankiw of the Beaverlodge station and Dr. L. Bailey, Rothamsted.

8. Studies on some of the properties of the nosema disease organism have been completed. The spores may be pasteurized without killing them. They are, however, affected in some way by the heat, and give off amounts of unusual sugars in the process. These sugars have been identified by members of the Food Research Institute. Studies continue on possible routes to find alternatives for fumagillin treatment. Heat treatment or ethylene oxide fumigation of combs requires added handling of combs and the risk of softening the combs or accumulation of chemicals in the combs to some degree.

   Chemical studies on the spores themselves open the way for other methods of biological control of this infection. The results on the sugar compounds in the spores have led us and Dr. Siddiqui's group to propose that N. apis affects the bee by interference with its normal sugar metabolism. We have proposed a research project, which, if it can be fitted into the general priorities affected by present economic conditions, might give information about the general physiology of this parasite and lead to other clues toward its control.

Honey Studies:

The proper chemical analysis of honey, and the relation of these analyses to grade standards and quality control has always been a concern to the unit. The late G. H. Austin had devised a simple formula to predict the granulation rate of a honey on the basis of its content of glucose and water. Following the association of Dr. Siddiqui with the section, more modern and realistic measurements of the individual sugars, using more recent methods was possible.

-/4

He and Dr. Furgala nade a complete survey of the sugars in a sample of Experimental Farm honey and described many not previously well known in Canadian Honey. Using the basic method for sugar separation, these workers examined a number of lots of commercial honey by paper chromatographic methods, and found that quantitative measurements of simple sugars had previously been over-estimated; a percent of higher sugars were actually present which had been measured as simple sugars by previous methods. They found that the variation of true glucose and water content of commercial honey samples (provided by the Production and Marketing Branch food inspectors) was too great to allow an accurate prediction of granulating rate in a given sample. There were some indications that some flavor components of honey were associated with the higher sugars.

Consulatation and Services:

The Apiculture Section has provided consultation and advice to many different sectors of public life; to the general public, concerned about swarms of bees or fear of stings; desire for general information; service to schools and other public groups providing special studies in biology; TV programs and the like.

Information and advice has been given to many beekeepers large and small concerning disease control; methods of feeding for preventive treatment; to provincial apiarists and other enforcement officials in cases of atypical infections or uncharacterized defects. Many identifications are made yearly of diseased or defective bees; general classification of honey samples; to provide quantitative examinations, using Siddiqui's method, of honey samples for export. One such examination has been made at the request of Trade and Commerce.

The section has consulted with members of the Interdepartmental Committee on Codex under the general chairmanship of Dr. Chapman, Food and Drug Directorate; it has reviewed draft proposals for honey standards, and suggested revisions; it has met once or twice with the committee during its deliberatons; it has assisted in making arrangements for the Informational Meeting at which the various proposed food standards were discussed with representatives of various branches of the food industry, including honey. It assisted in obtaining representative honey samples needed for analytical work to back up the presentation of the committee.

The section has been consulted in depth by the Health of Animals Branch, CDA. and especially by the Contagious Diseases Division concerning the development of New Zealand apiculture as an alternative source of queens for western honey producers. It obtained current information from New Zealand officials, concerning bee diseases in that country; initiated the request for a permit from the above Division for the first experimental importation; initiated the request for authorization from the Research Branch for the second experimental importation and its forwarding to the Contagious Diseases Division.

Members of the section initiated, through resolution the Canadian Association of Apiculturists, the establishment of the International Nosema committee to study nosema disease as part of an effort to improve

package bee and queen quality. This committee still meets at intervals and provides an opportunity for exchange of data and ideas between Canada and the U.S.A.

The section has often filled a liaison function on specific industrial problems. For example, complaints were raised in 1967 that the western beekeeping areas were being invaded by U.S. beekeepers who were disrupting the domestic beekeeping effort and were risking the introduction of diseases. The method of introduction included the bringing in of feed separately in the form of a pollen slurry. The problem was forwarded by us to the Health of Animals Branch with comments on the proposed method. We know from the literature that contaminated pollen is an excellent source of infection for healthy colonies. A letter is on file from the regulatory agency concerned expressing satisfaction with the end results.

The section has been consulted by members of the Food Division, National Health and Welfare, concerning the possible occurrence of toxic honeys in Canada; shortly thereafter, one such sample was submitted by Mr. Corner and was quickly referred to the division. The identification of derivatives of known toxins was established in the sample and a published report evidently will be made.

One can say that such liaison is not the proper task of a research unit; that it might be better handled by an information or industrial unit. However, the size of apiculture as an industry once again, seems to operate against such specialization in roles. Once again, the decision concerning this aspect of our work must be made elsewhere.

International Relations:

This area is as important in beekeeping as in other fields. The writer is a member of the Permanent Commission on Bee Pathology of Apimondia and on the editorial board of the Journal of Apicultural Research. Dr. Boch is a collaborator or consultant on a number of research projects at universities in the U.S. such as Cornell; Georgia; and Illinois.

In 1967, the writer was appointed chairman of the organizing committee for the scientific sessions of the 21st International Apicultural Congress, and served on the general congress committee. In addition to solicitation of papers and arrangement of sessions, a general summary of Canadian beekeeping was prepared for the Congress program. The writer took the responsibility to obtain the services of a ranking official of the Canada Department of Agriculture for a formal address at the opening session in order to emphasize the role that Canada played in the Congress. This was accomplished in the person of Dr. LeRoux, then Research Coordinator for Entomology in the Branch. Assistance was given Dr. LeRoux in the Branch. Assistance was given Dr. LeRoux in the form of background for preparation of his address, and later, when the proceedings were published, in the preparation of the manuscript.

Discussion:

It is plain that apiculture is not large enough to support very many scientists. This has a direct effect on program. We have not tried to do many of the experiments that the beekeeper can easily do for himself. Apiculture is a very complex field, and one who tries to work on all aspects becomes an expert in none. We have, over the years, concentrated on the areas of disease and behavior. It is in these areas in the past that our best accomplishments have been made; we feel the best promise for the future lies along similar paths.

Members of the section, using their knowledge of nosema analysis methods, and aware of differences in interpretation of research data between southern source regions and the northern consumer, spent part of three summers in examining, sampling and determining nosema levels in various areas in the Gulf states in package bee and queen production. This information was summarized and given to the appropriate officials of the Canada and U.S. departments of agriculture for their guidance in future programs to improve queen and package bee quality.

There is currently much concern about the social impact of science and of research and development; a previous member of the section provided information and know-how to officials of a western prison farm, who were trying to develop a program of training and rehabilitation, using beekeeping as one of their means. We don't know whether the program was successful; whether the trainees involved were returned to society as socially valuable persons or not; or how one would measure the effects of time and effort spent in this way. We do know that the effort was made.

Thus, over the past decade, the Apiculture Section has made many contributions, both to the field of entomological research on the one hand and to a productive agriculture on the other. It has done this in the face of many changes of both chance and of an organizational nature. The net worth of these contributions, and the value of return on the investment are subjects we shall have to leave to the judgment of others. The work reported here is in part contained in various minutes and proceedings of commercial; regulatory, and consultant organizations, in popular or technical articles in apiculture trade journals, and in publications in scientific journals. We would be glad to furnish reprints or copies of such articles as we have available to any interested persons.

One might cite the statement, in the recent USDA Appraisal of the Beekeeping Industry, that without modern methods of disease control, the cost of beekeeping might be doubled. The apiculture section has played a prominent part in development of some of the methods used. One might also cite the statement therein that the future development of dependable populations of bees will be based on a dependable supply of protein food for the colonies; here again, the work on pollen attractants can be expected to play a prominent role.

In conclusion, the many-sided work reported here is not peculiar to the Apiculture Section, Ottawa. Research and development in other federal apiculture units, in universities or in provincial departments of agriculture face somewhat the same goals and the same problems in different degree, and each has made its own accomplishments over the last decade. Some differences in goals, in approach, or in accomplishments exist as the particular circumstances vary. The Apiculture Section has tended to act, in accordance with the philosophy of the branch previously expressed by Dr. Anderson, as a backup unit, to supply fundamental research to try to answer some of the problems which arise in the field.

In this way, the direct contact formerly kept with various producers and field personnel has lessened. It is up to the future development of policy and planning by the responsible officials to determine whether and how this emphasis needs to be changed, to best serve the present needs of agriculture.

Respectfully submitted,

T.A. Gochnauer
Chief
Apiculture Section

REPORT OF THE PUBLICITY COMMITTEE - WESTERN SECTION

Similarly, as in the past years, my Council publicity, has mostly consisted of talking to Beekeepers on my travels and at meetings, as well as at the Conventions in Manitoba, Saskatchewan and Alberta.

The publicity achieved by this, is of course not extensive and covers only a small part of all the Beekeepers in Western Canada.

Publicity of Council and its activities is very important to its existence and progress, but because of lack of experience, time and money, publicity under a Committee setup, is of course limited.

For greater coverage, a setup similar to the proposal of Mr. P. Burke, in his last year's Report, would be desirable and certainly more effective.

> "Council should consider the appointment of a full time public relations officer. This person could handle the public relation matters within the Industry, general Honey Promotion Program and possibly do the secretarial work as well".

Of interest to Council members, I should wish to mention, that in this past year I noticed, that more Beekeepers were aware of Council and the work which is being done.

I contribute this mostly to the publicity of the Council's National Honey Promotion Program last year and also to the Canadian Beekeeping Magazine, which indicates that extensive publicity, does bring results.

I wish to recommend, that the Council consider some form of assistance to get more new subscribers to this Magazine, as such, would be the lowest cost publicity media the Council could obtain.

We cannot expect support from Beekeepers or others, if they don't know anything or very little about Council.

Respectfully submitted,

F. Rathje

REPORT OF PUBLICITY COMMITTEE

EASTERN CANADA

The reports received from Eastern provinces indicate that during the past year there was really very little publicity concerned directly with the Canadian Beekeepers' Council as such. Any publicity regarding the industry seemed to be directed to the general public concerning honey and honeybees for pollination service. In Nova Scotia, several local television programs, demonstrations at high schools and a number radio and newspaper interviews and talks were given. These were handled by Mr. E. Karmo. In the maritime provinces, promotional work was done at several fairs and exhibitions.

During the 1969 year, any publicity for council came directly as a result of the honey promotion program. In the case of honey promotion within the province of Ontario, as in the past, it was done mainly at the major fairs, such as the Canadian National Exhibition, Royal Agricultural Winter Fair, Central Exhibition at Ottawa and the Lindsay and Peterboro fairs and the International Plowing Match, and through brand advertising.

Respectfully submitted,

P.W. Burke,
Provincial Apiarist

FACTORS INFLUENCING THE BEEKEEPER'S NET INCOME

During the 1969 Canadian Beekeepers' Council Meeting, I was asked to prepare for this Council session a report on "Factors Affecting the Price Structure of Honey". I felt that this approach was perhaps too narrow and have, therefore, taken the privilege of changing the title to "Factors Influencing the Beekeepers' Net Income". Some of the things which I may state in this report could very easily be taken as criticism of one section of the industry or another. I do not intend it to be that way, as you will note that such criticism when I am finished could perhaps even be extended to myself. I have tried to take an unbiased look at the industry at the present time, in view of the experience I have had with it over the past 30 or more years. My comments, as much as possible, are based on facts obtained by a survey of beekeeping statistics in Canada and elsewhere, but, naturally, one cannot draw sufficient information from this source alone and, therefore, must draw on both experience and personal interpretation. I, therefore, hope that what I have to say may be taken in the right vein and possibly be of some use.

One of the reasons I changed the title was the fact that I have felt for many years that the industry has been controlled by those who are selling honey rather than those who are actually producing it, even though in theory those who were producing it were represented by those who were selling it under most circumstances. In the long run it is the net income of the beekeeper that is the major factor involved, not necessarily the selling price of the honey. Income is influenced in many ways and I will try to touch on several of these.

Naturally, a major factor is the actual selling price of the honey, but perhaps equally important is the actual cost of producing the product. In our over-concern to handle the first problem I have been inclined to think that we have neglected the second. It is quite simple to calculate that if we could quite readily reduce the selling price of honey by 1 cent per pound and the beekeeper would still be further ahead and perhaps could even sell more honey.

The first area I would like to consider is that of cost of production. Any gains made in this area mean a direct return to the beekeeper. While there are many factors which might influence the cost of production, there are two major ones. That of sources of nectar which determine the size of the crop obtained and the second is labour. There may be other costs which are specific to certain parts of the country, such as the cost of package bees for Western Canada.

The dependence of the beekeeping industry upon what the farmer grows is one of our greatest drawbacks at the present moment when we think of nectar production. The decrease in yield per colony in Eastern Canada was due mainly to changes in farm practise, while the increase and the incentive to move to Western Canada was due to the changes in crops being grown in that area. No clear look has been taken at this whole problem as it affects the beekeeping industry, nor has one ever tried to determine if there might be some crops which could be under the control, at least to some extent, of the beekeeper.

Unfortunately, in the beekeeping industry, as far as labour costs are concerned, the emphasis has been on honey itself both from a packing point of view and from an extracting point of view and certainly progress has been made in this field. No real look, however, has been taken at the actual overall labour involved with respect to the various steps performed and where improvements might be made. This problem could certainly vary from East to West. When these specific problems are known, our research moneys, which are very limited, should to a great extent be directed towards solving these individual problems whether the answer be by fundamental or practical research or a combination of both.

In recent years this has been the approach at the University of Guelph. Unfortunately, this overall approach should have been taken many years ago. As specific examples, we are exploring the possible use of black locust plantings of specific nectar producing strains in our conservation areas. The evidence indicates that under Ontario conditions it may even be practical to grow black locust for honey production. Queen introduction is a major cost of producing honey in Ontario. It we knew more of queen behaviour and could find simple means of finding and destroying old queens we may be well on our way towards handling bees and honey by the box rather than the frame.

Secondly, I will approach the sale of honey, covering it in two areas—domestic and export. We must be very careful in interpreting statistical figures to indicate what is taking place as we can be misled quite readily. The 1969 figure of a per capita consumption of 1.6 pounds has been bantied around within the past few months. I contend that you cannot estimate the per capita consumption on the basis of one year as there are too many factors involved, particularly the over-lapping from one year to the next, nor is it possible for one to foresee a trend unless one has sufficient information over a period of years. The lack of such information some five or more years ago indicated that we were on a downward trend in consumption of honey in Canada. I have, therefore, taken all of the figures and re-calculated them on five year averages for each period as indicated in Table 1. In order to reach the per capita consumption, I have taken the average population for the five year period as well as the average production, import and export. Taking all of these into consideration, one can readily see that, in spite of yearly figures, our per capita consumption of honey is being maintained fairly level at roughly 2 pounds. You may be interested to know that this is one of the highest per capita consumptions in the world. In Germany (considered perhaps the highest consumer of honey per capita) consumption is 2.2 pounds. I am, therefore, fairly convinced that our marketing procedures, our publicity, etc. within Canada have been quite efficient over the years especially when we take the following into consideration. That during the depression years when honey consumption per capita was much higher, the bulk of the honey was being produced in Ontario and marketed to a large extent by beekeepers themselves. We thus had a large number of people marketing honey where the heavy population of the country was actually located. This created an ideal situation for increased consumption. I have left out the ten year period during and just following the war as this was an artificial period, but from the 1950's on the whole situation changed. We had fewer beekeepers in Ontario, a much lower production in Ontario and the population was changing from rural to urban thus making the contacts and sales of honey much more difficult. During this same period we had the rapid build up of the chain store and its limitations on individual sales. I am convinced that the only reason we have been able to hold our own in marketing honey in Canada is because of the large immigration of people from Europe who are honey-eaters plus the fact that we must have been quite efficient for an industry our size in the advertising and

publicity programs. I cannot help but think that the drop in consumption per capita in the 1960-64 period is a direct result of the lower crops during the previous 10 year period and, therefore, less interest in promoting increased consumption during a period when imports were necessary. This, perhaps is one of the drawbacks to be found in co-operative selling.

When we consider the export market, the situation, however, is much different. We must remember that during the late 50's and 60's there has been a very rapid build up of production in the low population areas of Canada with no reel concerted effort to find new markets other than to maintain the major one that we had in Canada and compete with one another for an increased share of that market. The reason I say this is because of the information which you will find in Table 2. You will note that Germany has increased its imports from 60 million pounds in 1955 to over 100 million pounds in 1968. Yet what share of this has the Canadian exporter obtained? -- less than a quarter of a million pounds. The picture is perhaps more dramatic in the Japanese market. In 1961 the Japanese imported only 24,000 pounds of honey, but by 1967 it had increased to over 30 million pounds. Yet what share of this market have we? -- only about 129,000 pounds. From Table 1 you will notice that we have increased our exports of honey during recent years. But what have we done with it? Most of this has gone to the British market. I now quote from a statement made by an inbiased observer who sat in Britain at the time the honey was introduced into that market on a packaged basis. "When Canada went into the British packaged honey market, their main competition was the indigenous bottling industry who were selling at quite reasonable price levels. The Canadian packers were offering a better quality honey in a better package and to gain initial entrance into the market, were prepared to undersell the British bottler slightly. Even underselling the British bottler sligbly, achieved good returns. But instead of concentrating on competing with the British bottler, they chose to compete for the right among themselves to put the British bottler out of business. Clearly an unrealistic objective. The price competition between the Canadian packers was so severe that in the end the business became uneconomical as they also lost the confidence of the British buyer in their pricing policies. The Canadian volume of sales slumped and with this volume slump, along with the lower price level in the United Kingdom market, the Canadian packers had competed themselves to what was naturally reflected in lower prices to Canadian honey producers for raw honey."

What I am trying to point out is that, while we have apparently done exceptionally well at home, we have seriously affected the price to the producer and our markets in general by our export program. In my opinion, there are only two possible answers to this problem. Either the formation of a Canadian Honey Commission to handle export honey and avoid competition among packers or perhaps if the co-operatives could amalgamate under one export policy by shear control of volume it might be possible to maintain a satisfactory market and enter new markets on an organized basis. This, I believe, is the one area where the industry must make its major decision if it is going to overcome some of its present marketing problems.

In conclusion, I would like to emphasize that the honey situation does not parallel the wheat situation in western Canada, and cannot be solved by reducing production. The changes in cash crops in western Canada with increases in rape, buckwheat and legume seed acreage will demand more bees to handle pollination not less. We therefore, must face an ever increasing production of honey, far beyond what our domestic market will handle. This problem cannot be answered by publicity within Canada. It must be answered by finding our place on the expanding world markets for honey and reducing our costs of production so that we may compete on these markets.

I would, therefore, recommend that:

1) That an immediate attempt be made to solve competition among ourselves on the export market and a concerted effort be made to expand this market possibly by an export commission or amalgamation.

2) That a survey be made concerning the factors influencing the cost of producing honey with a view to determining means of reducing these costs.

3) That a survey be made of the factors influencing the sale of honey in Canada, such a survey to cover, in particular, the ethnic groups and our young people.

TABLE 1

CANADA

Years	Population in Millions	Production	Imports	Exports	Consumption In Pounds
		In Millions of Pounds			
1925-29 Inc.	9.7	21.62	0.08	1.66	2.06
1930-34 Inc.	10.5	30.82	0.03	2.25	2.72
1935-39 Inc.	11.0	35.74	0.052	3.27	2.95
1950-54 Inc.	14.5	29.39	1.007	0.47	2.06
1955-59 Inc.	16.6	28.07	4.553	0.681	1.92
1960-64 Inc.	18.6	35.24	2.218	3.807	1.80
1965-69 Inc.	20.4	44.62	2.704	7.120	1.97

TABLE 2

MAJOR IMPORTING COUNTRIES

Year	Germany	In Millions of Pounds (Canadian) (Export)	Japan	(Canadian) (Export)
1955	60.0			
1961			0.024	
1963			2.0	
1964			5.2	
1965	97.2		12.4	
1966			20.4	
1967			30.8	
1968	101.2	(0.254)		(0.129)
1969				

Respectfully submitted,

G. F. Townsend
Department of Apiculture
University of Guelph

PROMOTION REPORT - 1969

At the Council meeting held in Edmonton, March 1968, a great deal of concern was expressed at the surplus of 16 million pounds. (December 31, 1969 stocks on hand 27 million pounds)

The Peer and Graham Committee attempted to solicit Government assistance in moving the 16 million pound surplus with little success. The Executive of the Canadian Beekeepers' Council then accepted one of the suggestions of Mr. J. W. Edmunds, Chairman of the Promotion Committee.

The program as outlined by R. G. Evans and Associates was accepted by the Executive, Industry and Government. The program was carried out hastily with many errors but proved to be an outstanding success.

Mr. R. G. Evans reported at the evaluation meeting held in Edmonton, June 9, 1969 that sales for the first part of the year had been increased by 27%. This figure was supported by the Department of Agriculture who reported a higher figure.

The Dominion Bureau of Statistics disappearance figures for the first six months of the years 1963 - 1969 also supports the statement -

1963 - 5.6 Million	1967 - 10.4 Million
1964 - 9.8 Million	1968 - 7.1 Million
1965 - 9.1 Million	1969 - 12.3 Million
1966 - 7.0 Million	

1969 increase over 1968 for first six months 27%

Dominion Bureau of Statistics disappearance first three months of years 1964 - 1969

1964 - 4.3 Million	1967 - 6.8 Million
1965 - 4.4 Million	1968 - 2.5 Million
1966 - 2.2 Million	1969 - 6.6 Million

1969 Increase over 1968 first three months 38%

Dominion Bureau of Statistics average disappearance above 3.9 million 1969 disappearance 6.6 millior or 44% increase.

An attempt was made during the last year to continue this program with very little success. A Committee was formed to evaluate control and to be responsible to the Industry. It was a dismal failure.

Ontario refused to support the program. Central Alberta Dairy Pool failed to produce a promised contribution until an emergency meeting was called at Calgary in November when a lesser amount was paid.

-/2

Representatives at the emergency meeting in Calgary agreed to the reduced program and to the procedure of payment. Total cost of the program $31,750.00 with $10,000.00 payable December 1st - $5,000.00 December 31st and the balance payable on or before April 15, 1970.

Due to the fact that the Industry failed to submit contributions, $3,000.00 was paid in mid December - $5,000.00 late in December and $7,000.00 in February. It is of interest to note that $2,000.00 of the amount paid in February was 2½ months late.

The Industry failed to meet it's commitments that I as President of your organization personally promised over my signature.

I congratulate the Industry for this achievement and commend Ontario Co-op for having the good sense to stay out.

I would advise this gathering of representatives of the Industry that a continuation of a National Program is futile.

May I however, point out that if we were concerned in 1967 with a December 31st "Stocks on Hand" of 27 million pounds we could well show a little concern for the fact that the December 31st "Stocks on Hand" 1969 were 28.1 million pounds. At a 1969 rate of disappearance we will have a balance June 30, 1970 of 16 million pounds.

A U.K. promotion program was carried out in 1969 by the Exporters Committee in co-operation with Trade and Commerce. It is reported that this program was a success. The Dominion Bureau of Statistics figures to October 1970 indicate a reduction of export of 50%.

A U.S. promotion was set up by Trade and Commerce and offered to the industry in December. There were no takers. The Dominion Bureau of Statistics figures indicate a reduction of U.S. export to October 1970 of 1 million pounds.

I wish the Canadian Beekeepers' Council a prosperous 1970.

Respectfully submitted,

L. W. Truscott

At the sixth session of the Codex Alimentarius Commission held in Geneva March 4-14, 1969 the Commission had before it for consideration the Standard for Honey at Step 8 of the Procedure for the Elaboration of Regional Codex Standars. The standard was set out in Alinorm 69/43.

The Commission also had before it a Canadian proposal to designate the Standard for Honey as a world-wide Codex standard. The Commission decided by 8 to 2 with 19 abstentions to suspend the Procedure for the Elaboration of Codex Standards in order to deal with the Canadian proposal.

Following the consideration of arguments put forward by some delegations in favour of treating the standard as a world-wide Codex standard, and of arguments by other delegations in favour of treating the standard as a regional Codex standard, the Commission proceeded to vote on this issue. The Canadian proposal to designate the standard as a world-wide standard was defeated by 15 votes to 9 with 11 abstentions.

The Commission agreed that the following comments should be recorded and agreed on the amendments set out below:

2.1.2 Moisture content

The delegation of the Netherlands reserved its position on the decision of the Commission not to amend the maximum figure of 23% moisture content in respect of heather honey (Calluna).

2.1.5 Mineral content (ash)

Change 0.4% to 0.6%

2.1.7 Diastase activity and hydroxymethylfurfural content

Delete the word 'immediately' in the phrase 'Determined immediately after processing and blending diastase figure on Gothe scale'. The following text is to replace the existing text:

> "Honeys with low natural enzyme content, e.g. Citrus, diastase content on gothe scale: not less than 3 provided the hydroxymethylfurfural content is not more than 15 mg/kg".

4. Hygiene

Change the existing text to read as follows:

> "It is recommended that the product covered by the provisions of this standard be prepared in accordance with the appropriate sections of the General Principles of Food Hygiene. Honey should, as far as practicable, be free from inorganic or organic matters foreign to its composition, such as mould, insects, insect debris, brood or grains of sand, when the honey appears in retail trade or is used in any product for human consumption".

5. Contaminants

Delete this section.

6. Labelling

6.4 Country of origin

Delete the second sentence beginning "If the honey undergoes processing in a second country ...." since this provision would not apply to honey.

7. Methods of Analysis and Sampling

The Commission authorized the Secretariat to make minor corrections and editorial changes to the section on Methods of Analysis and Sampling on the basis of information given by the representative of APIMONDIA and the delegations of the United Kingdom and Yugoslavia.

The Commission agreed, with regard to analysis, that, as different results were often obtained even from using the same methods of testing, there was a need for collaborative testing between laboratories.

The delegation of the United States objected to the values established for diastase activity and HMF content on the grounds that much of the honey produced and consumed in the United States would not meet these values. It was the opinion of the US delegation that these provisions of the honey standard were not in conformity with the Codex Alimentarius principle of establishing minimum mandatory standards for wholesome acceptable products. The US delegation considered that the honey standard contained criteria for a special quality product which excluded much good and wholesome honey.

The Commission decided to advance the Standard for Honey to Step 9 of the procedure for the Elaboration of Regional Codex Standards. As of the present date the standard has not been officially accepted as a regional standard. The recommended procedure for the revision of a standard once accepted and printed is the same as that laid down for the elaboration of Codex Standards. Ten steps would be involved in order to establish a world wide standard. The standard would require ratification by the Commission at an annual session at steps 1, 5, 8 and 10. The minimum time required would be 3 years following a proposal on the part of a majority of the member nations for the elaboration of such a standard.

On inquiring from Dr. D. M. Smith, Secretary of the Canadian Interdepartmental Committee on Codex Alimentarius it was learned that some progress has been made with respect to Methods of Analysis for Honey. A copy of the changes in "Methods of Analysis for Honey " as below -

METHODS OF ANALYSIS FOR HONEY (At Step 9)

(Codex Alimentarius - Honey)

77. The Committee had before it the following working documents:

(a)	CODEX/ANALYS/68/10	Microscopic Examination of Honey
(b)	CODEX/ANALYS/68/11	Quantative Determination of Sugars in Honey by Gas Chromatography
(c)	CODEX/ANALYS/68/13	UV-Spectrophotometric Determination of HMF Content in Honey
(d)	CODEX/ANALYS/69/C/4	Determination of Diastase Activity in Honey
(e)	CODEX/ANALYS/69/B/5	Government Comments on (a) and (b)

At its fourth session the Committee had discussed the methods in documents (a) and (b), above and agreed that they could be of application to the honey standard but that the merits of the pollen analysis needed to be evaluated and the procedure of the GLC methods adequately described (ALINORM 69/23 paragraph 96). The delegation of the Netherlands had offered to make available to this Committee a description of a method for preparing soluble starch used in the determination of diastase activity (ALINORM 69/23 paragraph 9). Concerning the Pholometric determination of HMF content in the Regional Standard for Honey, it was understood that the method had been endorsed with the view of replacing it by a spectrophotometric method in the future (ALINORM 69/23, Appendix III, page 11 - foot note). For these reasons The Committee discussed the methods of analysis described below in connection with the honey standard in spite of the fact that this standard was being sent to governments for acceptance at Step 9.

(a) Pollen analysis

78. The representative of APIMONDIA introduced the subject, pointing out that the "Commission Internationale de Botanique Apicole" of the "Union Internationale des Sciences Biologiques" had been working on this subject since 1952 and had recently published quantitative methods of pollen analysis. He also mentioned that training in this field did not represent any difficulties for persons with a knowledge of systematic botany and that this method, if considered together with other methods, was indispensable for a conclusion on quality and origin of honeys.

79. The Committee noted that provisions were given in the standard for compositional criteria depending on the origin of the honey and for labelling according to floral or botanical origin or according to the geographical or topographical region where the honey was produced. The Committee was of the opinion that pollen analysis, while useful, was not sufficiently developed to be suitable as a referee method should be very detailed, stressing the capabilities and limitations of the technique. The Committee recognized that the documentation of European honeys was extensive but that a comprehensive pollen atlas was necessary and that documentation was less complete for other parts of the world. The Committee also considered that for international trade, a world atlas of pollens contained in honeys should be available before the amendment of the standard could be considered.

80. The representative of APIMONDIA agreed to consider these points and to provide delegations with their method. The Committee agreed to have this question on the agenda of its next session, but it was pointed out that the publication of this atlas needed fundamental research which would probably take a considerable time.

(b) Determination of sugars by gas chromatography

81. The Committee noted that this selective and quantitative method of determining the sugars present in honeys gave results comparable to the enzymatic determination of sugars. It also considered that a less precise method, such as thin-layer chromatography might be sufficient for such a determination. The Committee undertook to request the delegation of Austria to provide the Committee with such a method. The representative of APIMONDIA agreed to consider the various methods discussed.

(c) Ultra-Violet spectrophotometric determination of HMF

82. The Committee agreed that this method had undergone adequate collaborative studies and should be recommended in replacement of the method contained in the present standard. It further agreed to request the Commission to set in motion a procedure for the amendment of the standard as stated above.

(d) Diastase activity determination in honey

83. The delegation of the Netherlands pointed out that the method at present included in the Recommended Regional Standard was not fully satisfactory and that the new proposed method presented to the Committee was the official BENELUX method. The Committee noted that directions for the preparation of the soluble starch, including determination of its moisture content and blue value, were given in this method. The Committee therefore agreed that the establishment of an international reference centre for the supply of such a reagent (as agreed at the fourth session of the Commission (ALINORM 69/23 paragraph 9) was no longer necessary. The Committee agreed to send the BENELUX method (with appropriate translations) to governments for comments.

Respectfully submitted,

D. F. Peer

ADDRESS BY W. DAMAN

TO

THE CANADIAN BEEKEEPERS' ANNUAL MEETING

MARCH 4 - 6, 1970, WINNIPEG, MANITOBA

Marketing of Agricultural products has been the subject of a great deal of discussion over the years with far too little action being taken by producers, agri-business and government. This situation unfortunately is world-wide. If it were not so, then why is agriculture all over the world lagging behind other segments of the economy. Is it because historicially we have been low man on the totem pole and we have tended to accept this as our role? Is it because government has bailed us out through subsidies or other types of assistance sufficiently often just to keep us breathing? Is it because of a conscious attempt by other influences to leave us with too much to starve and not enough to live decently? Or is it because we have been so insistent to maintain our so-called rugged individualism that it has kept us from the united action necessary to get a better shake for ourselves?

Personally, I believe all of the questions posed have, to a degree, contributed to agricultures dilemma. I would place the emphasis however on our own lack of unity and our failure to develop clearly defined objectives. This is obvious when you look at agriculture, commodity by commodity. It is further borne out when you look at the split that has developed and continues between the two major farm organizations in Canada. Some answers must be found to these problems and must be found soon. Time is running out for us. If we can't come up with satisfactory solutions to these problems, then Big Business or Big Government or a combination of the two will. And if this happens, we will have no one to blame but ourselves.

The Agriculture Congress held in Ottawa in March of 1969, I believe was an attempt by government, through the position papers developed by the Agricultural Task Force, to indicate the position of our industry at that time. As a delegate of the Canadian Horticultural Council to that Congress, I believe it was a most useful exercise and one that was long overdue. Naturally the Canadian Horticultural Council delegates took exception to some of the statements contained in the papers which we felt were not founded in fact. Some of the statements too were not particularly popular, but that does not automatically mean they were not valid. The Congress provided an opportunity for the industry to see itself through the eyes of others who do not have a vested interest. It gave the industry an opportunity for frank and objective discussion at both the committee and plenary session levels. It also provided government with an opportunity of stating its agricultural policy which came out loud and clear, "Compete or Perish". It became abundantly clear to those attending that subsidies would only be used as a last resort and that no relief by way of tariff action would be forthcoming easily in the future. The governments announced and indeed already implemented action to fight inflation, has already been felt by dairy producers and the fruit and vegetable industry in Canada. On the one hand, subsidies have been reduced and on the other graduated reductions in tariffs were accelerated and made effective three years in advance.

At the Agriculture Congress the heat was on and I believe the Canadian Horticultural Council responded in a clear concise and objective manner. Three Policy statements were developed and presented two of which are important to our topic today, namely "Economic Goals for Agriculture" and "Supply Management and National Marketing Boards". Council's stand on the two position papers was as follows -

STATEMENT RE"ECONOMIC GOALS"

In the view of the Canadian Horticultural Council, a first and basic economic reality recognizes that it is in the interest of the Canadian nation that agriculture receive a fair and compensatory return for its production.

There is an undue emphasis on a "cheap food" policy for Canada which appears to be unjustified in the light of the fact that productivity gains of Canadian agriculture in the recent past have far outstripped those of industry, but that despite these productivity gains, net returns to agriculture have diminished, while those to industry and indeed to most other segments of our economy, are at record highs.

We don't subscribe to the wishes expressed by some segments of our society "stop the world, we want to get off" - we would like to get on! Food costs in Canada are the second lowest in the world (20% in Canada, 17% in the United States). It seems unreasonable that Canadian Agriculture should be expected to provide such a subsidy to an affluent Canadian society while its own internal economy lags far behind.

Ninety three per cent of Canadians are not farmers. This vast majority benefits from the present unreasonable disparity of return to producers.

Having become conditioned to receiving food products at prices below parity - and indeed often below the cost of production - the community at large resists any program that is designed to make conditions more equitable.

Throughout the entire gamut of position papers at the Congress, the underlying philosophy seems to include the concept that Agriculture must stand on its own in a completely competitive climate of free world trade, with the strong implication that if it cannot do so, the justification for its existence may be questioned.

This criterion is not applied to the other segments of society nor to the rest of the Canadian economy. At every hand, artificial conditions have been applied to other endeavors which have supported and protected them from the harsh realities of free economic forces. Not only have these industries been protected, but agriculture's cost of production have had to include these inflated costs, thereby making our own position increasingly untenable.

We recognize the right of every segment of our economy to a fair return for its contributions in goods and services. We do ask, however, full recognition that agriculture is also entitled to the same right, not as charity, not as welfare, not as handouts, but in fair recognition as equal partners in the overall economic community, and as co-beneficiaries in our nation's total prosperity.

We therefore recommend a re-appraisal of the first and basic economic reality in order to adequately reflect this concept.

With its embodiment, the other realities become more meaningful - without it they lose their significance.

The Council's statement on "Supply Management and National Marketing Boards" was a little more guarded in its approach and was as follows, and I quote -

"Supply Management and National Marketing Boards"

"It would appear adviseable that consideration be given to the formation of National Commodity Commissions. The objectives of the Commission should be -

1. To explore and promote both domestic and export markets but not to perform actual selling.
2. To encourage the setting up of provincial commodity boards.
3. To cooperate with the provincial commodity boards which would handle sales.
4. To promote and assist in the movement of any surplus production.

The National Commission should have a board of directors comprised of one producer representative from each producing province. The appointment of these directors should be removed from political influence.

Since Canada is divided geographically into two distinct areas, it is further recommended that two regional zones should be established. The Western Tariff Zone (Port Arthur and West) would comprixe one zone and the remaining area would comprise the other zone.

Because of similarities within these two zones, it seems logical that the first goal should be regional commissions. It would not be possible under existing legislation to establish a regional or national commission unless there were marketing boards in each province concerned.

The subject paper deals almost entirely with supply management. It is suggested that more serious consideration should be given to price management as a further specific means of improving the primary producers' position.

A three-year study on the feasibility of a National Marketing Board for Apples by the Economics Branch, Canada Department of Agriculture, is now at the printing stage. The Canadian Horticultural Council would like to review this study before reaching any conclusions on a national board for apples"

Although paragraphs 90, 100, 101 and 102 of the Fruits and Vegetables Report point out some of the minor problems of marketing boards, we would like to point out that -

1. Efficient producers can and do enter the market.
2. Production efficiency has increased under marketing board programs.
3. Vertical integration by processors has not increased in recent years

I feel certain that the policy statement on "Economic Goals" is one that all Beekeepers would subscribe to. At this point in the development of the Beekeeping Industry you may be well advised to consider carefully Council's position with respect to National Boards or Commissions.

The recommendation that consideration be given to establishing National Commodity Commissions before provincial commodity boards are established is a new approach. There are some hints that new Federal legislation may make it possible. In fact one of the objectives of such a Commission would be to encourage the establishment of provincial boards. It was felt by the Council delegation that there should be a National body to which any provincial commodity group could turn for advice and assistance in developing a marketing program.

It is envisaged that such National Body or Commission would have trained staff, (legal, secretarial, public relations, etc.) who would be completely familiar with all Marketing legislation whether Federal or Provincial. In time, marketing schemes from all over the world could be studied in order that improved marketing techniques used in other countries could be adopted and incorporated into our own marketing schemes, and legislation. Members and staff of the National Marketing Council would make their services available to provincial groups intending to use Marketing legislation.

Presently, I believe every province in Canada has some form of marketing legislation available to primary producers. Although such legislation dates back to the late 1930's limited use has been made of it. British Columbia and Ontario have used the legislation to a greater degree than any of the other provinces. By far the majority of schemes developed under the legislation have been successful. Some, however, have not. In these cases, the cause for failure has generally been due to -

1. Lack of adequate management and leadership.
2. Lack of enforcement of the regulations.
3. Lack of support by producers for various reasons.
4. Lack of adequate powers.
5. All of which created lack of support by producers.

In each of the provinces, a regulatory board or commission is appointed by Government to approve and supervise plans proposed by producers. Usually such provincially appointed Boards are extremely sympathetic to the needs of producers and will give every assistance possible. In some of the provinces, however, where marketing legislation is used to a limited extent, or not at all, they can be of only marginal assistance as they have little more experience than the producers proposing a plan. In such instances, a National Board or Commission could provide invaluable services.

The marketing legislation in each province is different mainly in the area of the powers the province is prepared to vest in producer boards or commsissions. For instance, British Columbia and Ontario legislation provides producers with very broad powers. Alberta tends to be much more restrictive in this area to date. Manitoba has withheld control over production going to processing and until recently limited control to that over producers only.

There are other significant differences in legislation as well. Eg., Manitoba was the first province to provide for Marketing Commissions, followed closely by similar action taken by Alberta and Ontario. All the powers vested in Marketing Boards are also vested in Commissions in the three provinces. The only difference is in the make-up of the directorate which must be producers only on boards, and may be appointed from across the industry in Commissions. The industry approach to marketing inherent in Commissions has much to be said for it. It can broaden the marketing viewpoint and experience by permitting participation from and placing responsibility on, other parts of the industry, which can make a real contribution to the marketing function.

Another significant difference in marketing legislation as between provinces is in the power of enforcement. In most provinces, enforcement powers are placed in the hands of the producers marketing boards, in others they remain with the provincial board or commission. Where the latter is the case, it is often difficult to get the kind or enforcement necessary to make a plan work. Governments are extremely conscious of their public image and often shy away from enforcement, particularly when a few rabble rousers and a hostile news media get on their tail.

On the National scene, the Hon. H. A. (Bud) Olson has stated that he intends to introduce new Federal Marketing legislation at this sitting of parliament. He has indicated that provision will likely be made to establish a Federal Marketing Council whose responsibility it will be to recommend National schemes for government approval and to supervise such schemes when approved. Any commodity group entertaining the idea of presenting a plan for approval had better be sure it has all of its homework done before appearing before the Federal Commission. I will be surprised if a commodity group in presenting its case would not have to fully document its presentation to include among other things -

1. The need for a scheme.
2. How such a scheme if implemented would improve the situation over existing conditions.
3. Well developed regulations and orders that comply with the legislation.
4. Insurance of adequate management personnel.
5. A large degree of support from producers affected.

As a recent arrival upon the scene at the National Office, I make no pretence with respect to knowing the Beekeeping Industry and its many complexities. As a person having had some experience in working under Marketing legislation, I can see many advantages that your industry would have in considering an over-all marketing plan -

I would outline them as follows:

1. You are involved with a single commodity with relatively few grades or classifications of product.
2. The bulk of your product presently is sold through few outlets.
3. Your product is storable so that a burdensome surplus may be carried over from one year to the next if deemed desirable.
4. Your product and package lends itself ideally to an organized promotional program.
5. Your product can be sold on a world market.
6. There is great scope for additional uses for honey which can be researched and developed.

But just to have some advantages in developing a provincial or National marketing plan is not enough. There must be general agreement throughout the industry to make certain personal sacrifices in the interests of making for a better industry. A great deal of effort must be expended as well. A brief list of some of the more important aspects of the job to be done would include the following -

1. Be prepared to give up individual identity and work as a unit.
2. Undertake a comprehensive study of the potential market for honey.
3. Decide upon what portion of that market Canadian Beekeepers can supply at a profit.
4. Take the steps necessary to expand the profitable market through promotion, trade missions, etc.
5. Accept a system of equitable quotas if necessary.
6. Be prepared to adequately finance any over-all program that is acceptable to the majority.
7. Be prepared to devote time and talents to the development of a plan if you are called upon to do so.
8. Take whatever steps are necessary to promote the plan decided upon with your fellow Beekeepers and the public at large.
9. Adhere stringently to the regulations and directives developed under any plan and insist upon full enforcement.
10. Assure that competent people are employed at management level to operate operate the plan decided upon.

As I indicated earlier, I am not foolish enough to suggest that I have all the answers to Beekeepers Marketing problems. I would suggest, however that if you are prepared to seriously consider some of the suggestions outlined, and if you are prepared to admit you have marketing problems and are determined to find solutions to those problems, then the Beekeepers in Canada will have taken a giant step towards the improvement of their industry. You and only you are charged with the responsibility of making that decision.

If we at the National Office can assist you in any way in these and any other matters, you need only call upon us. I am sure you will find us responsive to our responsibility to you and the other members of Council.

- 30 -

REPORT OF CANADIAN ASSOCIATION OF APICULTURISTS TO CANADIAN BEEKEEPERS' COUNCIL

The Canadian Association of Apiculturists met Monday and Tuesday, March 2nd and 3rd, 1970. Much of the time was spent discussing research problems, bee disease control, adulteration of beeswax (is it a problem?), New Zealand queens, increased buckwheat production on the prairies - to name some of them.

In considering research areas of interest national problems were listed as: marketing, bee diseases, wintering, pollination with honeybees, honey plants and management. These were discussed in a manner for consideration as topics of concern of the industry for the Apicultural work planning conference scheduled for the spring of 1970.

Some expression was given to the idea of a senior Apiculture liasion officer or co-ordinator for all aspects of Apiculture including research, extension, etc., as a federal appointee similar to the "Dominion Apiarist" of a decade or more ago.

Dr. Pankiw led a discussion on use of drugs and antibiotics. He will report later by mail, to Canadian Association of Apiculturists on a review of some literature re possible toxic effects of large doses of Fumidil-B, and compatability of Terramycin and Fumidil-B in heavy doses. Mention was made of the risk of transmitting disease by way of trapped pollen.

Dr. C. Jay expressed the thought, that, while he would like to engage in more practical field studies in Apiculture there as a need for more funds because of the high expense nature of such work when removed from his central location.

Plans are made for a uniform inspection certificate for interprovincial movement of bees and equipment.

Mr. F. Paquin gave an interesting report on Can Farm E.D.P. Farm Management Data System. Some comments were expressed that sound cost-of-production figures are needed for both package operations and over-wintering colonies and type of operations.

Dr. A. Khan of the Morden Experimental Station gave a report on interest in buckwheat as a crop in Manitoba. In three years, the acreage has doubled; 50% of this is in Manitoba. Honeybees are needed at the rate of 2-3 colonies per acre for pollination service.

Recently there has been about 1,000 acres in buckwheat which could increase to 200,000 acres. This plant has no insect or disease problems and can produce up to 35 - 40 bushels per acre.

A brief report was given by P.W. Burke and J. Edmunds on the meeting held at Beltsville, Maryland in October, 1969 to discuss quality in package bees and queens. This meeting was arranged by the Apiculture Section of the U.S. Department of Agriculture. Much of the discussion centered around nosema problems. It was pointed out by Mr. Edmunds that beekeepers in Western Canada were considering other methods of beekeeping such as; the importation of queens from other than U.S.A. and wintering of colonies because of problems involved with nosema disease and general quality. The recommendations from this meeting consisted of de-contamination of used package cages by heat treatment (up to 120°for 24 hours) and feeding of Fumidil-B both in spring and fall where there has been a history of disease trouble. This procedure should control nosema below the economic level.

It should be noted that this meeting was also attended by Dr. T.A. Gochnauer, Apiculture Section, Ottawa and Dr. B. Furgala, University of Minnesota and formerly of the Apiculture Section, Ottawa.

As a follow-up to this meeting, another was organized for February to be held in Tifton, Georgia where a number of the American Federal and State officials would be meeting with producers of package bees and queens.

Professor G.F. Townsend reported on the Bee Research Association abstracts placed on computerized arrangements at the University of Guelph. This will make information available for both research and extension purposes on a fast print-out basis at low cost. Anyone interested in further details should contact Professor Townsend.

Mr. Ed Bland of Saskatchewan was elected Chairman of the Canadian Association of Apiculturists for the 1970-71 year and Mr. Douglas McRory of Manitoba was elected as Secretary for the same period.

Respectfully Submitted,

P.W. Burke,
Provincial Apiarist

GRADING COMMITTEE REPORT

On March 16, 1969 I received a letter from Mr. L. Truscott informing me that I had been appointed as the representative of the Producer Packers to Canadian Beekeepers Council, and asking me to accept the position of Chairman of the "Grading" Committee. I was pleased to accept this.

As I am new to Council and not very well prepared to assume the duties of this Committee, we have not accomplished much this year.

I understand from Mr. Truscott that an appeal asking permission to use 3 lb. containers was taken to the Department in Ottawa by the Executive and after a lengthy discussion, it was decided not to grant this request.

I have had quite a number of requests from individuals wondering why the Federal grading inspectors cannot give color and moisture grades for bulk honey being shipped to a packer.

I cannot help but think that some consideration could be given to adjusting the regulations to enhance the sale of honey in these days of a surplus.

Gentlemen, this is about all I have to report. May I thank Messrs. E. Smith, L. Truscott, R. Maguire and J. Chandler for their interest and information.

Respectfully submitted,

Wm. Hamilton

GRADING

Following the Annual Meeting of Council in 1969, the Analytical Control Services of the Canada Department of Agriculture were contacted to find out if it would be possible to initiate testing of honey packed in Canada for diastase activity and HMF content. Due to a heavy backlog of work this was not possible due to lack of funds and staff.

In January 1970, a report on revised methods of analysis for honey proposed for use by the Codex Alimentarius Commission was received. The new methods are much more up-to-date than the previous methods and should give more realistic results. Further testing using the revised methods will be necessary to establish how well Producer Packs and Pasteurized Packs of honey will meet the international standards for undamaged honey and what the differences may be.

At the present time Producer Pack Honey may be sold by producers or packers within the province in which it was produced without declaring a Canada grade name. It may also be sold interprovincially provided it is marked with an appropriate Canada grade name by a registered packer. The same situation exists with respect to exports except that honey may be exported with or without a declared grade if it meets minimum grade requirements.

Very careful consideration must be given to the question of whether or not Canada grades should be established for a "Producer Pack" type of honey. Such a move would allow honey which is not necessarily completely liquid or completely granulated to be packed by large and small packers alike and to move freely from one province to another under a Canada grade name.

It would eventually appear on the shelves in supermarkets and chain stores along with liquid and granualted packs competing for consumer acceptance. This could cause a great deal of confusion and dissatisfaction on the part of a large number of honey users who are accustomed to and prefer liquid or granulated honey.

Respectfully submitted,

E. R. Smith

CANADIAN HONEY PACKERS REPORT

After having held two meetings, the Canadian Honey Packers Association has instructed me to issue a report to the Canadian Beekeepers' Council on our meetings.

I will not bore you with the detail, suffice to say we have achieved a fair degree of unanimity. This is not to say that the members of the Canadian Honey Packers Association agree on all matters. However, let us be realistic.

We all know, that in the past there has been considerable friction between member packers. I consider myself fortunate to have had my term as President at a time when a definite atmosphere of cooperation prevailed. I find myself now in the delightful position of still being President, but with the knowledge that next year another will have the job. This therefore, allows me the luxury of being somewhat free in my report.

We continually hear the term you PACKERS in a derrogatory manner. Since there are so many differences in methods and management between packers, I can only infer that the reference is to the Canadian Honey Packers Association as this is the only association in which we are all represented collectively

Yesterday, Council requested the Canadian Honey Packers Association to consider three questions at our next meeting. They were -

1. What is Canadian Honey Packers Association doing to increase the return to beekeepers for their honey.
2. What are the Canadian Honey Packers views regarding promotion - national, regional or both.
3. What support is Canadian Honey Packers Association offering the Canadian Beekeepers Council.

In answer to question #1, I have been instructed by the membership to indicate firmly to you that (in answer to charges that our Association does not give a "damn" about beekeepers) one of our major concerns has been and will continue to be, the well being of the Canadian Beekeeper, bearing in mind the difficulties of the market place today, and we are doing our utmost to obtain the maximum return to the beekeeper.

In answer to question #2, the Canadian Honey Packers Association has instructed me to tell you that we support Brand name promotion and we heartily approve of all educational and publicity programs at the beekeeper and Association level.

Last but by no means least, the Canadian Honey Packers Association have instructed me to read to you one of the minutes of our meeting which I assure you is most significant in that it answers question #3 with COMPLETE UNANIMITY, a heretofore impossibility.

I quote " .... that the Canadian Honey Packers Association recommend that members of the Packers Association levy a handling charge of 65¢ per barrel or its equivalent and that these monies be given to the Canadian Beekeepers Council in lieu of the present levy".

Let me emphasize gentlemen, that this motion was passed UNANIMOUSLY. A feat which is of no little signifiance, let me assure you.

I wish to explain our reasons for part of this motion. It was felt that while packers are the most obvious vehicle for collection of levy, a responsibility still rests with the beekeepers in this matter and to this end we -

1. Decided to send all monies collected DIRECTLY to the Canadian Beekeepers Council and to let Council refund any monies it wishes to provincial organizations.
2. And we urge the Canadian Beekeepers Council to implement levy collection on an equivelent basis for ALL other honey marketed.

As my final remark in this report, as President of the Canadian Honey Packers Association, I wish to strongly urge you of the Beekeeping fraternity to critisize CONSTRUCTIVELY, not destructively our Association. Please stop "nagging" and "harping" because this is a two way street between packers and beekeepers. We have made a start, albeit a modest one in solving some of the problems that are plaguing OUR industry and in this start there is some agreement. So please don't try to tear down our "start". We have not had this amount of unanimity in a long time.

Respectfully submitted,

R. Bird

REPORT OF THE STATISTICS COMMITTEE

REPORT OF THE STATISTICS COMMITTEE

CHAIRMAN: H. R. Taylor

COMMITTEE: M. Gray, P. Stevens

TERMS OF REFERENCE: 1961 Minutes

BEEKEEPING STATISTICS FOR CANADA

Year	Bee-keepers No.	Colonies No.	Production Per Colony (lbs.)	Total Production (000 lbs.)
1960	12,570	327,340	98	32,224
1961	11,660	336,910	104	35,058
1962	10,370	340,470	90	30,713
1963	10,660	360,060	117	42,142
1964	10,760	382,240	96	36,662
1965	10,350	413,030	119	49,157
1966	10,000	429,860	104	44,502
1967	9,660	445,070	103	45,682
1968	9,600	414,060	81	33,365
*1969	9,310	421,060	122	51,211
10 Year Averages				
1948-57	18,740	392,500	78	30,470
1949-58	16,850	368,900	78	28,707
1950-59	15,660	354,320	81	28,542
1951-60	14,740	344,260	85	29,125
1952-61	14,000	337,320	85	28,514
1953-62	13,440	332,810	86	28,460
1954-63	13,110	334,690	90	30,038
1955-64	12,690	338,970	94	31,719
1956-65	12,315	347,915	97	33,680
1957-66	11,870	357,900	101	36,155

BEEKEEPING STATISTICS BY PROVINCE

British Columbia

Year	Bee-keepers No.	Colonies No.	Average Yield	Total Production (000 lbs.)
1960	1,980	19,800	98	1,940
1961	2,000	19,980	105	2,100
1962	1,500	20,570	61	1,255
1963	2,000	24,300	67	1,630
1964	1,890	28,900	58	1,670
1965	1,890	31,500	135	4,240
1966	1,940	36,600	68	2,470
1967	1,600	37,140	68	2,540
1968	1,500	31,360	65	2,038
*1969	1,840	30,000	82	2,460

* Estimated

Alberta

Year	Bee-keepers No.	Colonies No.	Average Yield	Total Production (000 lbs.)
1960	1,670	54,900	138	7,576
1961	1,390	60,000	160	9,600
1962	1,260	65,400	105	6,867
1963	1,100	71,600	162	11,600
1964	1,450	83,850	102	8,590
1965	1,320	114,000	160	20,050
1966	1,150	114,000	116	13,180
1967	1,400	120,000	145	17,380
1968	1,500	110,000	93	10,230
☆1969	1,400	120,000	159	19,080
Saskatchewan				
1960	2,400	33,200	136	4,515
1961	2,000	36,800	108	3,970
1962	1,800	37,200	77	2,864
1963	1,650	36,700	166	6,100
1964	1,550	39,000	141	5,500
1965	1,400	41,000	154	6,300
1966	1,250	42,000	145	6,100
1967	1,110	46,680	153	7,150
1968	1,000	45,000	113	5,085
☆1969	1,000	46,000	194	8,924
Manitoba				
1960	920	41,700	153	6,380
1961	790	40,560	164	6,652
1962	730	38,560	120	4,630
1963	700	42,750	170	7,285
1964	810	46,000	127	5,822
1965	820	47,000	126	5,930
1966	860	53,000	168	8,910
1967	850	55,000	166	9,140
1968	830	52,000	83	4,309
☆1969	800	50,000	179	8,950
Ontario				
1960	2,720	123,100	75	9,232
1961	2,700	126,000	74	9,324
1962	2,500	126,000	93	11,718
1963	2,630	130,300	84	11,000
1964	2,560	130,000	85	11,000
1965	2,580	129,700	76	9,800
1966	2,550	134,900	76	10,216
1967	2,440	133,170	45	6,032
1968	2,590	126,100	71	8,947
☆1969	2,220	126,570	62	7,903

☆ Estimated

Quebec

Year	Bee-keepers No.	Colonies No.	Average Yield	Total Production (000 lbs.)
1960	2,220	49,840	46	2,284
1961	2,130	48,700	61	2,971
1962	1,990	48,300	65	3,140
1963	2,010	49,700	83	4,125
1964	1,800	48,900	53	2,592
1965	1,880	44,300	54	2,392
1966	1,720	43,550	75	3,266
1967	1,660	47,120	65	3,063
1968	1,480	43,550	55	2,395
☆1969	1,390	42,690	82	3,501
New Brunswick				
1960	190	1,200	72	86
1961	170	1,280	70	90
1962	170	1,100	56	62
1963	210	1,410	89	125
1964	270	1,540	63	97
1965	200	1,300	66	86
1966	180	1,600	64	102
1967	260	1,740	62	108
1968	290	1,930	72	138
☆1969	290	1,900	64	122
Nova Scotia				
1960	380	2,800	52	146
1961	390	2,690	93	250
1962	340	2,800	53	148
1963	300	2,700	79	213
1964	280	3,400	58	197
1965	280	3,500	87	303
1966	290	3,500	59	208
1967	290	3,500	67	236
1968	360	3,400	53	181
☆1969	320	3,300	77	254
Prince Edward Island				
1960	90	800	81	65
1961	90	900	72	65
1962	80	540	54	29
1963	60	600	107	64
1964	70	650	83	54
1965	60	730	77	56
1966	60	710	70	50
1967	50	720	46	33
1968	50	720	59	42
☆1969	50	600	29	17

☆ Estimated

CANADIAN BEESWAX IMPORTS

	Qunatity lbs.	Value $
1959	322,352	172,311
1960	290,005	160,337
1961	246,500	146,149
1962	281,200	172,323
1963	285,100	176,812
1964	231,486	148,135
1965	269,544	161,934
1966	219,516	131,000
1967	228,444	178,000
1968	179,333	159,000

CANADIAN IMPORTATION OF PACKAGE BEES

	No. of Packages	Value $
1959	142,832	541,623
1960	145,980	553,177
1961	145,601	591,444
1962	152,666	661,719
1963	163,423	713,873
1964	186,034	935,001
1965	208,599	1,039,448
1966	230,362	1,165,000
1967	249,105	1,312,000
1968	231,158	1,199,000

CANADIAN STOCKS ON HAND

Held by Packers & Wholesalers
(Million lbs.)

	1962	1963	1964	1965	1966	1967	1968	1969
March 31	10.4	9.0	12.9	12.8	16.2	16.7	✱ 24.5	14.2
June 30	8.9	6.4	7.1	8.1	11.4	13.1	✱ 19.9	8.6
Sept. 30	12.3	17.2	14.4	16.1	24.4	22.9	✱ 21.2	21.6
Dec. 31	12.0	16.9	17.2	18.4	23.5	27.0	✱ 20.8	28.1

✱ Revised

CANADIAN HONEY IMPORTS

FOR THE YEARS 1964 - 1969

Country	1964 (lbs.)	1965 (lbs.)	1966 (lbs.)	1967 (lbs.)	1968 (lbs.)	1969 (lbs.)
Un. Kingdom	11,728	125,002	19,130	17,759	20,528	17,922
Argentina	399,023	978,837	841,945	1,601,572	282,425	132,277
Brazil	35,715	—	—	—	—	—
Br. Honduras	—	—	—	—	14,871	—
Chile	—	—	23,459	—	—	—
Denmark	3,600	3,600	4,344	2,400	3,600	4,800
France	—	—	—	2,283	480	1,358
Germany, West	6,424	10,393	14,350	17,135	23,320	29,008
Greece	8,072	23,408	38,577	34,180	21,432	37,547
Hungary	7,200	3,502	16,254	7,660	13,200	16,440
Italy	—	—	—	1,875	—	—
Ireland	960	—	—	—	—	630
Jamaica	553	—	—	—	—	—
Mexico	10,800	43,283	195,000	146,771	168,881	140,976
Netherlands	28,785	13,584	24,708	20,108	27,796	23,090
New Zealand	2,160	2,400	1,818	3,996	10,290	2,340
Poland	25,686	22,792	15,000	28,200	39,360	11,400
Spain	7,479	13,153	—	11,464	3,968	3,307
Yugoslavia	1,701	960	—	—	—	1,200
U.S.A.	2,250,268	3,072,954	3,454,592	756,854	356,185	453,130
TOTAL	2,802,554	4,321,578	4,668,987	2,660,657	1,012,736	886,225

March 1970

CANADIAN HONEY EXPORTS

FOR THE YEARS 1964 - 1969

Country	1964 lbs.	1965 lbs.	1966 lbs.	1967 lbs.	1968 lbs.	1969 lbs.
Un. Kingdom	4,376,831	7,245,706	7,858,603	3,147,501	5,077,836	2,454,650
Bahamas	10,501	10,762	5,574	19,400	3,360	7,488
Barbados	384					240
Belgium - Lux	93,842	94,952	21,800	110,500	88,050	13,125
Bermuda	13,190	14,310	11,855	16,809	20,592	22,129
Br. Guiana		15,750	3,980	9,000		
Denmark	3,422	1,145	4,065		19,968	4,002
Finland		3,525				
France	7,500	10,588	33,488	62,460	656,870	779,395
Germany - West	119,650	45,567	233,206	356,535	296,593	319,802
Hong Kong			11,645	3,000	3,000	3,800
Iceland	3,288					
Iraq		2,688				
Ireland	67,200		24,660	15,220	53,730	58,552
Jamaica		384				
Japan	58,954	270,959	162,140	352,658	149,048	146,224
Malaysia	1,500	1,200	17,718			
Netherlands	17,000	2,400	8,340	14,000	47,750	252,550
Netherlands, ANT						686
Norway	78,076	34,000	13,896	23,160	13,460	
St. Pierre-Miq.		528			780	
Switzerland	3,600	29,312	4,350			2,600
United States	59,941	116,257	140,890	160,250	1,664,964	696,898
Austria			8,295			2,090
Kenya						1,380
U.S. Oceano						29,815
TOTALS	4,914,879	7,900,033	8,571,213	4,325,259	8,155,589	4,795,426

WORLD HONEY PRODUCTION (000 LBS.)

Country	1963	1964	1965	1966	1967	1968
North America:						
Canada.....	42,142	36,662	46,160	44,502	45,682	33,365
United States..	266,778	251,188	244,549	247,842	223,363	215,727
Mexico.....	56,217	59,524	66,138	74,956	62,653	80,247
Guatemala.....	6,227	4,000	4,800	5,600	5,622	4,900
TOTAL.....	371,364	351,374	361,647	372,900	337,320	334,239
South America:						
Argentina.....	55,115	77,161	44,092	44,092	77,161	30,864
Brazil.....	16,535	17,161	17,637	17,485	16,100	16,000
Chile.....	14,550	14,991	11,464	13,228	12,125	12,000
TOTAL.....	86,200	109,313	73,193	74,805	105,386	58,864
Europe:						
Austria.....	9,921	13,228	9,921	10,362	11,464	12,000
France.....	44,092	37,478	39,683	33,069	23,340	18,395
Germany, West..	20,944	21,164	24,251	20,944	33,000	23,148
Italy.....	13,228	22,046	14,330	15,873	14,330	14,991
Spain.....	21,746	21,129	22,046	23,192	21,936	21,000
Switzerland....	2,482	9,921	(5,000)	3,968	4,023	8,000
Yugoslavia.....	8,688	8,333	7,899	7,620	7,055	7,500
United Kingdom.	-	-	-	6,700	8,960	7,716
TOTAL.....	121,101	133,299	123,130	121,728	124,108	112,750
Other Countries:						
Japan.....	14,109	12,566	12,566	16,755	17,637	17,637
Australia.....	32,679	45,647	42,080	39,985	35,158	44,000
New Zealand....	10,002	9,262	9,262	10,236	10,338	12,000
Mainland China	-	-	-	30,566	32,486	37,286
Israel	-	-	-	4,905	5,467	3,968
Turkey	-	-	-	25,150	28,095	30,000
TOTAL.....	56,790	67,475	63,908	127,597	129,181	144,891
U.S.S.R. (Estimated).....	-	-	-	222,444	220,240	231,483
GRAND TOTAL.....	635,455	661,461	621,878	919,474	916,235	882,227

Source: U.S.D.A.

APPARENT PER CAPITA DOMESTIC DISAPPEARANCE OF HONEY IN CANADA

YEAR	POUNDS PER YEAR
1953	1.9
1954	1.6
1955	1.7
1956	1.6
1957	2.0
1958	1.8
1959	2.0
1960	1.8
1961	1.7
1962	1.6
1963	1.8
1964	1.7
1965	1.9
1966	1.9
1967	1.9
1968	1.6

N.B. Production plus Jan 1st. Stocks on Hand plus Imports less Exports less Dec 31st. Stocks on Hand

BEEKEEPING STATISTICS FOR U.S.A.

	Colonies No. (000)	Production Per Colony (lbs.)	Total Production (000 lbs.)
1960	5,005	48.5	242,802
1961	4,992	51.3	255,868
1962	4,900	50.9	249,608
1963	4,849	55.0	266,778
1964	4,840	51.9	251,188
1965	4,783	51.1	244,549
1966	4,772	51.9	247,842
1967	4,825	46.3	223,363
1968	4,770	41.9	215,727
1969 (Prel.)	4,731	60.2	285,000

"CANADIAN BEEKEEPING"

We are eighteen issues old, printing 1,400 magazines each month, with approximately $400.00 worth of advertising this month of March. In the past year we have changed from letterpress to off-set printing. There is a deadline for all ads and information by the middle of each month and the magazine is mailed during the first week in each month.

The one hundred dollars received from Council last year was most appreciated. As you know, a definite space or column was not established for the very good reason that the activities of Council and its affiliated members are the heart and soul of the magazine. The assistance of Mr. J. Uhrin of the Magazine Committee and Mr. H. Taylor of the National Office has been given most freely and in the year ahead, we are looking forward to working closely with them.

We have not to date, made any attempt toward offering the magazine to schools as a science reference on honeybees and related subjects. It is our belief however, that we have improved our presentation sufficiently to be listed as a reference publication for Grades 7 to 10. We are asking the Provincial Apiarists to use their own discretion in placing the magazine on school lists in the provinces. Once the publication is placed on a list, it is up to the school to make the actual subscription order if they so decide.

Further, I personally believe that attention should be given in view of underwriting approximately 5,000 magazines to beekeepers with ten colonies or more. There is every reason to believe that once circulation of this size was established, there would exist sufficient advertising to carry the cost of the magazine to render the cost of underwriting almost nil. This consideration should be given in view of the necessity of establishing a national news media for beekeepers in Canada. Subscriptions to schools and to places outside the country would be continued without change. A registered beekeeper in Canada with less than ten colonies could apply to have his name added to the list but any one not owning or operating colonies would be required to subscribe. Under the conditions outlined, the Editor would be prepared to work full time and the magazine could be expected to improve and grow in size.

The present block system of subscribing has been well received by the Provincial Associations and there is every reason to expect that memberships in the Associations should increase and we shall have a hard core of subscribers in Canada who will be taking the magazine on a yearly basis. In addition there will be a certain proportion who will perfer to subscribe independantly. As long as this group can be kept satisfied, it would appear that the block subscriber has little to fear concerning the value received. In other words, the arrangement seems to be a healthy condition for all concerned. It is highly unlikely however, that in my time as Editor, a level of circulation can be reached in order that the magazine can be regarded as a National News media. Some of these reasons cannot be changed. They are, geographical make-up of the provinces and the low investment level of the great bulk of the beekeepers considered to be approximately 10,000 in number.

Respectfully submitted,

J. H. Arnott, P. Ag.

RECOMMENDATIONS OF THE CANADIAN ASSOCIATION OF APICULTURISTS

TO THE CANADIAN BEEKEEPERS' COUNCIL (1970)

1. "That the Canadian Beekeepers' Council recommend to the Canada Department of Agriculture that a National Co-ordinator for Apiculture be appointed".

   Explanation: It is suggested that because of the multi-disciplinary approach of apiculture today that this person should have a broad knowledge of apiculture and research relating to apiculture, as well as a broad knowledge of areas relating to the pollination of seed, fruit, and vegetable crops. He would, in effect, be the liaison officer between the Canada Department of Agriculture and all areas relating to apiculture at the provincial, national, and international levels.

2. "That the Canadian Beekeepers' Council present the problems of the Beekeeping Industry, on a national basis and according to priorities, to the Canada Department of Agriculture at the Work Planning Meeting in Apiculture (1970)".

National Problems Requiring Immediate Attention

a) Marketing and Product Research

b) Bee Diseases

   a) Nosema in packages and wintered colonies
   b) Fall dwindling
   c) High loss of queens and bees during build-up

c) Management for Honey Production and Pollination

   a) Costs of producing honey and pollination services
   b) Management studies relating to these

d) Wintering Studies

   a) Queens
   c) Colonies

e) Pollination

   - priorities by crops, e.g. rapeseed, red clover, buckwheat, fruits, vegetables

f) Honey-producing Plants

   - problems associated with special crops, e.g. rape, buckwheat

REPORT OF THE FAIRS AND EXHIBITS COMMITTEE

Judging from the reports received this year all provinces participated to a greater or lesser extent in honey exhibits of a display or competitive nature. Honey was exhibited at the Quebec Fair, the Canadian National Exhibition, the Royal Agricultural Winter Fair and the Pacific National Exhibition. As usual, honey was exhibited at dozens of local provincial fairs with much commendable effort being exercised by local honey producers and fair officials.

As usual the Canadian Beekeepers' Council office has supported the honey exhibits by trophys and cash awards. These awards are given to exhibitors at the major fairs and exhibitions throughout Canada as follows;

Pacific National Exhibition

Canadian Beekeepers' Council Silver Shield, Miniature shield;

Miss Colleen Sigalet
6309 - 240th Street
Langley, B.C.

Canadian Beekeepers' Council, Silver Cup, Best Granulated Honey, Miniature trophy;

Mr. Henry Barten
22882 Dewdney Trunk Road
Haney, B.C.

Canadian Beekeepers' Council, Cash award $25.00, special individual entry from either a 4-H member or junior beekeeper;

Miss Colleen Sigalet
6309 - 240th Street
Langley, B.C.

Royal Agricultural Winter Fair

Best Exhibit of liquid honey, Rose bowl

Mr. J. Valas
William Street, North
Lindsay, Ontario

Best exhibit of granulated honey, Miniature trophy

Mr. A. C. Jaenen
Fairlight, Saskatchewan

Grand Champion exhibitor award $30.00

Mr. A. C. Jaenen
Fairlight, Saskatchewan

Reserve Champion exhibitor award $15.00

Mr. J. Valas
William Street, North
Lindsay, Ontario

Honey Promotion

During the 1969 - 70 National Honey Promotion Campaign, British Columbia, Alberta, Saskatchewan, Manitoba, Quebec and the Atlantic provinces worked hard to promote honey. Special thanks to Manitoba, the host province for an excellent job very well done.

Provinces also organized and supported local exhibits as follows:

Nova Scotia - "Thanks" Endel Karmo

While there were honey exhibits in several smaller County Exhibitions, we had exclusive honey booths at these Exhibitions. Annapolis County Exhibition, Hants County Exhibition, Atlantic Winter Fair. In the latter, there were forty-four (44) honey and wax entries for competition, and three (3) commercial entries (non-competitive).

In all of these three (3), the booths were manned by beekeepers all the time to answer questions and distribute honey recipes. Observation hives with live bees with brood of all stages and other pertinent demonstration material were on display in each case.

New Brunswick - "Thanks" Dave Pinnock

We have two quite large honey exhibits each year. The first was held in Moncton, N.B. in conjuction with the Moncton Flower Show on Tuesday, August 28th. This is a one day show and it is sponsored by the Southeastern Beekeepers' Association. This show contained exhibits of honey in all classes, plus observation hives of bees and exhibits of wax, etc. The booth was staffed by members of the above association and I judged the honey. This was a very good booth and created a good deal of interest both in honey and beekeeping in general. This association has about 35 members and they meet regularly the first Thursday of each month.

In Fredericton, at the Fredericton Exhibition, a large booth was erected and although this is a Provincial show the local beekeepers, or the Central Beekeepers' Association, erect the booth and the exhibition pays for a staff of one to be a full time attendant. This exhibition runs for one week starting on Labour Day each year.

Over twenty (20) entries of honey from various districts of the province were exhibited at this exhibition, and the booth included beekeeping supplies and observation hives. This booth is well attended and members of the Central Beekeepers' Association assist in answering questions and helping staff the booth. One of the finest light honey shows ever was held this year with twelve (12) entries in the white class.

Several other County Fairs also include honey in their prize lists, but these are more or less for local beekeepers to exhibit their honey.

The Charlotte County Beekeepers' Association put on a honey competition at their fall meeting and at this meeting sixteen entries of honey were exhibited and prizes were donated by the association.

Our beekeepers also entered nine classes of honey at the Atlantic Winter Fair at Halifax and received very good prizes. One of our beekeepers received third prize on liquid honey at the Royal Winter Fair in Toronto.

Quebec - "Grand Merci" Jean Guilbeault

There was participation by our Apiarists in six regional exhibitions in the Province of Quebec held in the year. The most important were held at Quebec, Sherbrooke, Bedford, St. Hyacinthe and Victoriaville.

The winners of each of these exhibitions competed for Honey King of the Province of Quebec, 30th August at the highest Provincial Exhibition which was held in Quebec.

It was a young man of 21 years, Mr. Yves Gauvin of St. Hyacinthe, who won the title and the grand prize offered by the Government of Quebec and the Industry. The highest competition since 1950.

Ontario - "Thanks" Phil Burke

During 1969 only the Canadian National Exhibition and Royal Agricultural Winter Fair had competitive classes in honey and beeswax. The number of entries at the C.N.E. was very small and insufficient to take up the prize money. There were over 40 entries at the R.A.W.F. These were set up in a display, which together with an adjoining area showing beeswax products, and the importance of honeybees for pollination took up approximately 45 feet of display area.

The honey competition at the 1969 C.N.E. was the last in Agricultural commodities, apart from livestock. At the 1970 C.N.E. there will be no competition. However, there will be displays of various agricultural products which will take the place of the competitions. There has been such trouble in obtaining exhibits that the C.N.E. management decided to drop the competitive aspects.

Manitoba-"Thanks" Doug McRory

In Manitoba a great deal was done in 1969 in regard to fairs and exhibitions. We tried to cover the major fairs and have beekeepers cover some of the minor ones. The display owned by the Beekeepers' Association was taken to the following fairs for the time period indicated -

Boissevain - one day
Killarney - one day
Ninette - one day
Brandon - Provnicial Exhibition - one week

At the Brandon Exhibition a honey show is held and very good displays were had in 1969.

Portage Fair - three days
Morris Fair - three days
Provincial Flower Show held in Winnipeg - two days

At the Provincial Flower Show there is also the Provincial Honey Show which received a good deal of attention from beekeepers and was well publicized by the papers.

The local Red River Apiarists' Association which is mainly a hobby bee club conducted several displays during the past year at the smaller flower shows in the city of Winnipeg. They held a display for two days at Transcona, two days in East Kildonan, two days in St. Boniface, and two days

in North Kildonan. This added a great deal of interest within the city.

Other beekeepers had displays at such places as the fair at Dugald, Roblin, and Dauphin.

Saskatchewan - "Thanks" Ed Bland

Honey was exhibited at the Regina and Saskatoon exhibitions. The responsibility for setting up the exhibits, arranging for judges, and manning the exhibit being that of the local bee club. The Regina honey exhibit showed a tremendous improvement over previous years. The bees were moved to the building which features the barnyard zoo. This is a very popular place with the children accompanied by their parents. In setting up the display, the beekeepers turned back the pages to the era when live bee displays were in vogue. A colony of docile bees located in a screened area and having access to the outside through the wall of the building, were handled each afternoon. The crowds gathering showed a great deal of interest in the exhibit and members of the bee club were there to explain the qualities of honey and what was going on in the glass observation hive at the front of the exhibit.

Alberta - "Thanks" Jack Edmunds

Alberta beekeepers continue to be inactive in the area of showing honey, undoubtedly we are partly at fault for this in that we concentrate our activities primarily on the commercial beekeeper. I have found over the years that the most active exhibitors are the semi or smaller beekeepers or the hobbiest, as I said we concentrate on the commercial beekeeper in our activities.

Every year it seems that I get some enquiries about showing honey, but when it comes donw to the wire it does not get done and I know that commercial beekeepers get bogged down in a big crop like we got this year or in the middle of extracting season and the showing does not get done.

British Columbia - "Thanks" Charlie Kennedy

Both the British Columbia Beekeepers' Association and the Vancouver Division, British Columbia Honey Producers' Association entered non-competitive exhibits in the Pacific National Exhibition, 1969. The Honey Producers members manned the exhibit every night discussing honey and beekeeping with all and sundry. There was a crowd around the exhibit all night every night. I myself was on the floor every day and enjoyed talking honey and answering many questions.

One of the high spots in the show was the winning of the Canadian Beekeepers' Council Shield, scoring highest points for the best liquid honey, special individual entry from a 4-H member, and the Rose Bowl for best beeswax. This should certainly encourage 4-H members to compete in future shows.

Though total entries were down the display was outstanding.

Honey exhibits were also displayed at Saanich, Armstrong, Langley, Dawson Creek, Salmon Arm and many smaller local fairs.

The success of Honey exhibits and displays at local fairs was very much in evidence again this year.

It can be argued that commercial beekeepers are very busy with their production problems at fair time and thus are not able to properly display their product. Hobbiest Beekeepers do participate in and are responsible for the bulk of the display and competitive honey entries. It has been said that every beekeeper and honey producer can be a promoter of honey. If we are to believe and accept this principle, then continued support and encouragement of honey exhibits and competitions at all levels is a valuable contribution to the welfare of producers, packers and retailers alike.

This committee recommends the continued support of honey shows, exhibits and competitive displays by Provincial Beekeepers Associations and especially by The Canadian Beekeepers Council.

Respectfully submitted,

J. Corner, Chairman

APICULTURE RESEARCH REPORT

APICULTURE

ENTOMOLOGY RESEARCH INSTITUTE, OTTAWA, ONTARIO

Carbohydrates of Nosema apis Spores - P.J. Wood*, I.R. Siddiqui*, J.W. Vandermeer and T.A. Gochnauer

The carbohydrate compounds extractable from N. apis spores by heat or sonic treatment have been separated and identified. They include gluconic acid, major amounts of Trehalose and sorbitol, lesser amounts of heptitol, glucose and small amounts of fructose. The identification of the sugars gives useful information for further studies on metabolism of the parasite and its effect on the bee. Trehalose is an important blood sugar in bees. Knowledge of these compounds will aid further attempts at culture and assays of other antimicrobial agents.

* Food Research Institute, CDA

Effects of Some Antibiotics - T.A. Gochnauer

The treatment of Nosema with fumagillin has given some hints for studies on other possible compounds. One compound reported to act by means similar to fumagillin, steffimycin, was assayed on inoculated bees. The material at 25 and 250 mg/liter of syrup killed bees without reduction in the number of spores formed. Another compound with antifungal activity, kalagungin, was less toxic but was ineffective. A synthetic compound with high activity against a wide range of organisms including protozoa (2-amino-5-(1-methyl-5-nitro-2-imidazolyl)-1,3,4-thiadiazol) was similarly tested without results.

Pollen Attractant - R. Boch

A need for supplementing the supply of pollen in times of dificiency has long been recognized by the beekeeping industry. However, there is no satisfactory substitute for pollen available at present. Substitutes which may or may not be nutritionally adequate are not accepted by honey bees because the substitutes lack certain trace substances generally present in pollen. These trace substances are apparently highly attractive to the bees and stimulate both foraging in the field and pollen feeding in the hive.

M. Lepage and R. Boch have attempted to identify the attractant substances in pollen. It is hoped to add artificial attractant to substitutes thus making them as attractive to the bees as natural pollen. It would then be possible to determine the nutritional value of various substitutes and to develop a fully adequate substitute for pollen.

The attractants in pollen are lipids soluble in the usual solvents and in methanol. The yellow color of certain pollens was identified as a lutein ester. It was found that pollen-gathering bees have a strong preference for yellow powders. Another attractant substance was an unusual fatty acid containing 18 carbon atoms. This acid was identified as octadeca-*trans*-2, *cis*-9,12-trienoic acid by C.Y. Hopkins, A.W. Jevans and R. Boch.

Honeybee Alarm Pheromones - R. Boch

Isopentyl acetate and 2-heptanone are two alarm substances produced by worker honeybees in their sting apparatus and mandibular glands, respectively. Comparative tests showed that isopentyl acetate is 20 to 70 times more potent in evoking alarm reactions from bees at the hive entrance than 2-heptanone. Isopentyl acetate accounts for about 75% of the activity of the alarm pheromone contained in the sting apparatus.

RESEARCH STATION, BEAVERLODGE, ALBERTA

Comparison of New Zealand and California Queens - P. Pankiw

(a) Wintering and package bee production

Twenty-three colonies headed by New Zealand queens and 17 colonies headed by California queens were wintered at Abbotsford, B.C. Colonies were given preventive feeding of fumagillin and oxytetracycline in the fall and early spring as well as 6 lb. of pollen supplement. Three New Zealand and 1 California queen failed. Colony consumption of stores averaged 80 lbs. for both groups. The winter was severe and brood rearing of colonies was restricted. Sacbrood was evident in most of the New Zealand colonies and built up slower. The California colonies were split into 6 two-pound packages and the New Zealand into 5 two-pound packages.

(b) Honey Production

Thirty-seven New Zealand queens and 30 California queens were compared. The California queens reared more brood during the first 4 weeks after hiving. Sacbrood was present in the colonies headed by one of the strains of New Zealand queens. However, production of both groups was similar. In one yard the production was 113 and 112 lb. for the California and New Zealand stock respectively at one apiary site, while in another more favorable site the production was 150 lb. and 146 lb. respectively.

European foulbrood was present in several New Zealand colonies in July despite preventive feedings in May and June.

DEPARTMENT OF APICULTURE, UNIVERSITY OF GUELPH, GUELPH, ONTARIO

Nectar Secretion - R.W. Shuel and G.F. Townsend

There is increasing evidence thatthe effect on secretion of auxin-type hormones is exerted directly, possibly by way of a change in membrane properties. The effect is partially reversible.

Over a 3-year trial period, Birdsfoot Trefoil (Lotus corniculatus) has shown little promise as a nectar plant.

Black Locust (Robina pseudoacacia) is the major honey producing plant in Eastern Europe where many varieties, including those for honey production, have been developed. Ten varieties of Black Locust seed were obtained from Roumania and Czechoslovakia in 1968. These varieties are being set out for testing purposes on the Arkell Farm. An additional sixty different sources of seed were obtained from Hungary, Bulgaria, Roumania, Germany, Sweden and England in 1969 and will be planted for test purposes.

Physiology of the Honeybee - R.W. Shuel and S.E. Dixon

Unaltered worker jelly does not support pupation of worker larvae. The addition of enough sugar to make the total sugar concentration in the worker diet equivalent to that of royal jelly permitted a normal prepupal ecdysis to take place.

The reproductive system of the queen honeybee develops continuously from the larval stage, whereas that of the worker retrogresses in the prepupal and pupal stages. Implantation into worker larvae of extra corpora allata (source of the juvenile hormone) from queen larvae reduced the amount of retrogression but implantation of extra corpora allata from worker larvae had no effect.

Injection of farnesyl methyl ether, a compound that mimics some juvenile hormone effect, promoted limited oocyte development, though it did not increase the number of egg tubes. Experimental treatments also altered the time pattern of maturation. Evidently reproductive development is a function of hormonal balance.

The ratio of 6 to 1 labelled carbon in $^{C}14O_2$ from radioactive glucose is used as a measure of the importance of the direct oxidation, or pentose phosphate pathway, in respiration.

The C_6/C_1 ratio was measured in queen and worker honeybee larvae to find out whether this might account for the characteristically greater oxygen uptake by queen larvae. The ratio was very low and approximately the same in the two castes at 3-4 days of age, never exceeding 0.19. This result indicates the importance of the pentose phosphate pathway, but does not explain the difference in oxygen uptake between castes. Total recovery of radioactivity (from both C_6 and C_1 labels) was about 3 times higher in queens than in worker larvae. There was greater incorporation of C_6 than of C_1 into lipid and into haemolymph protein. The relationship between labelling of CO_2 and of lipids was reciprocal. (In Co-operation with Department of Zoology)

Honeybee Stock Improvement - M.V. Smith

Imported honeybees races were maintained through controlled mating. The use of indoor flight rooms for holding and maturing drones appeared to be quite successful.

Honeybee Behavior - M.V. Smith

Numbers of Carniolan queens of known ages were introduced into small plastic cages containing 50-75 worker bees. Aggressive worker responses consisted of threatening, holding, pulling and stinging. Any of these actions, of continued, resulted in balling and requently death of the queen. The reception of the queen was considerably influenced by her age, odour and behaviour and by the presence or absence of the mandibular glands.

Honeybee Products - G.F. Townsend

Methods of handling honey from the extracting comb to the market have pronounced effects on both its color and hydroxymethylfurfurol content and therefore, presumably on its quality. Honey color is seriously affected by the color of the comb used in supers. The use of brood combs for extracting will sometimes lower the color by as much as two classes although the effect on hydroxymethylfurfurol content may not be too significant. Warming honey at 35oC for up to two days before extracting does little harm, but beyond this period it considerably increases the hydroxymethylfurfurol content although there is little effect on the color. Great care must be exercised in the use of Brand melters. Brand melters appear to increase the color when brood combs are used in the honey supers. Brand melters also considerably increase the hydroxymethylfurfurol content at higher temperaturers of operation. It would appear that white combs passed through an electrically radiant heated Brand Melter would do little harm to the honey.

Optical Density as a Means of Color Classification of Honey - G.F. Townsend

The Pfund classifier was found to vary greatly between individual readings and between different readers. Some honeys were lighter than 0 on the Pfund classifier.

The optical density of honey measured on a Coleman Model 9 colorimeter using the complete light spectrum offers a precise, reproducible measurement of color. The method can be used for most floral sources of honey and puts blending on a systematic basis.

DEPARTMENT OF ENTOMOLOGY, UNIVERSITY OF MANITOBA, WINNIPEG, MANITOBA -S.C. Jay

Studies of Honey Bees in the Tropics - S.C. Jay

The following studies were conducted at 18°00'N., 76° 45' W., and will be reported upon in more detail when the statistical analyses have been done -

(a) The disorientation of honey bees in commercial apiaries.
(b) Pollen and nectar collection in relation to daily flight cycles.
(c) Methods of reducing temperatures of hives and their effects on nectar and pollen collection.
(d) The behaviour of honey bees when collecting nectar and pollen from cocoanut flowers, and their effect on seed set.

Rearing and Caste-determination Studies of Queen Honey Bees - S.C. Jay

The basic studies for rearing queens in cages have now been completed. The effect of the following factors on the number and "quality" of the queens reared by them were examined: number of nurse bees, age of nurse bees, method of grafting, use of egg versus larval grafts, number of larvae per cage, foods, temperature, and humidity. It was found that groups of 50, 100, 200 and 400 nurse bees, 10 days old, could accept larvae and rear them to adult queens. Queens could be reared by 25 and 50 bees from larvae which had been first accepted by 200 or 400 bees.

The method could provide queens year 'round for use by the beekeeping industry as well as provide a tool for various behavioral and physiological studies.

Ovary Development of Honey Bees - S.C. Jay

The production of laying-working has posed problems for the effective management of honey bee colonies. A basic study is being conducted to ascertain what underlying factors influence ovary development in worker bees. The following has been done to date: Ovaries of worker bees of known ages were examined at intervals after the bees had been introduced to colonies with queens or without queens. These colonies contained immature queen and worker bees in various combinations. Inhibition of ovary development in the test worker bees appeared to depend on the presence of worker caste larvae and pupae and not the presence of larval, pupal, or adult queens.

The Nectar and Pollen Loads of Honey Bees - S.C. Jay

A long term study is underway to study the factors which most affect the nectar and pollen loads of honey bees. Particular emphasis is being placed upon those factors which occur in the field with a view to separating the controllable from the uncontrollable factros. Three years data have now been collected relating to starvation, flows, time of day and season, division of labor, etc.

Population Studies of Honey Bee Colonies - S.C. Jay

This is a long range study to determine what factors influence the population growth of honey bee colonies and to determine how these factors operate. Results of such studies involve practical applications of economic importance to the honey and pollination industries as well as theoretical aspects of value in population studies of other social insects. The following have been completed to date:

(a) A 3-year survey of brood, adults, bee weights, stores, etc., of colonies at various dates throughout the season.

(b) A 3-year study (with 10 Manitoba beekeepers) of honey production and brood/adult ratios of colonies initiated at various times during the season with various numbers of bees.

(c) A 2-year study (one more to be done)of brood and adult curves (and the factors affecting them) in colonies initiated at one time with various numbers of bees.

Work is also continuing with the direct and indirect effects of nutrition, size of brood nest and adult disorientation.

Taken from the "Report of Committee on Horticultural Research 1969. "