

The Canadian Beekeepers' Council
(Representing all Canadian Beekeepers)

MINUTES AND PROCEEDINGS

19TH ANNUAL MEETING

REGINA, SASKATCHEWAN

NOVEMBER 24 - 25 - 26 - 1959

OFFICES; 219 Queen Street, Ottawa 4, Ontario

THE CANADIAN BEEKEEPERS' COUNCIL

MARITIME BEEKEEPERS' ASSOCIATION

M.S. Horsburgh,
Cambridge, N.S.

ASSOCIATION DES APICULTEURS
DE LA PROVINCE DE QUEBEC

Rene Brasseur,
306 East Craig Street,
Montreal, P.Q.

LES PRODUCTEURS DE MIEL DU QUEBEC

O. Paradis,
St. Simon, Co. Bagot, Que.

ONTARIO BEEKEEPERS' ASSOCIATION

Victor Mesley,
Kemptville, Ont.

ONTARIO HONEY PRODUCERS CO-OP LTD.

M. Harvey,
Coderington, Ont.

MANITOBA BEEKEEPERS' ASSOCIATION

E.K. Burnett,
Roland, Man.

MANITOBA CO-OP HONEY PRODUCERS LTD.

Paul Uhrin,
Austin, Man.

SASKATCHEWAN BEEKEEPERS' CO-OP ASSN.

C.E. Meilicke,
Box 773, Prince Albert, Sask.

SASKATCHEWAN HONEY PRODUCERS CO-OP LTD.

R.M. Pugh,
Tisdale, Sask.

ALBERTA HONEY PRODUCERS CO-OP LTD.

J.C. Read,
Red Deer, Alberta

ALBERTA BEEKEEPERS' ASSOCIATION

Alan Graham,
Coaldale, Alberta

B.C. HONEY PRODUCERS ASSOCIATION

J.P. Hodgson,
New Westminster, B.C.

G.W.H. Reed,
R.R.1, Glenmore Drive,
Kelowna, B.C.

CANADIAN HONEY PACKERS ASSOCIATION

P.F. Pawlowski,
Alta. Honey Producers Co-Op Ltd.,
10971 - 102nd St., Edmonton, Alta.

HONORARY MEMBERS

J.W. Braithwaite, Brandon, Manitoba
P.C. Colquhoun, Maple Creek, Sask.
C.B. Gooderham, Ottawa, Ontario
G.H. Pearcey, Kelowna, B.C.
T.H. Shield, Toronto, Ontario
J.N. Dymont, Smithville, Ontario
Mrs. H. Grace, Madison, Wisconsin, U.S.A.
F.R. Armstrong, Ottawa, Ontario
W.H. Turnbull, Vernon, B.C.

PAST PRESIDENTS

1940-1 W.R. Agar, Brooklyn, Ontario
1942 S.M. Deschenes, Montreal, P.Q.
1943 J.W. Braithwaite, Brandon, Man.
1944 P.C. Colquhoun, Maple Creek, Sask.
1945 A.T. Brown, Peterborough, Ont.
1946 W.E. Phillips, Dauphin, Man.
1947-9 F.R. Garland, Winnipeg, Man.
1950-1 J.N. Dymont, Smithville, Ont.
1952 P. Kowalski, Edmonton, Alta.
1953-4 W.H. Turnbull, Vernon, B.C.
1955-6 H.C. Allen, Toronto, Ontario
1957-8 S.J. Lye, Oakville, Manitoba

PAST SECRETARY TREASURERS

1940 W.T. Patterson, Winnipeg, Man.
1941-8 R.M. Pugh, Tisdale, Sask.
1949 W.G. Le Maistre, Edmonton, Alta.
1950-9 R.M. Pugh, Tisdale, Sask.

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THE CANADIAN BEEKEEPERS' COUNCIL

NINETEENTH ANNUAL MEETING
SASKATCHEWAN HOTEL, REGINA
NOVEMBER 24 - 25 - 26, 1959

REPRESENTATIVES PRESENT:

M.S. Horsburgh, O. Paradis, Victor Mesley, M. Harvey, E.J. Burnett,
H.W. Kitson, C. Meilicke, R.M. Pugh, J.E. Read, Alan Graham,
J.P. Hodgson, G.W.H. Reed, H.C. Allen and R.M. McKay (Secretary)

CONSULTANTS PRESENT:

J. Corner, Provincial Apiarist, B.C. Department of Agriculture, Vernon, B.C.
J. Edmunds, Supervisor of Apiculture, Alta. Department of Agriculture,
Edmonton, Alta.
D.M. McCutcheon, Provincial Apiarist, Sask. Department of Agriculture,
Regina, Sask.
E. Bland, Asst. Provincial Apiarist, Sask. Department of Agriculture,
Regina, Sask.
D.R. Robertson, Provincial Apiarist, Man. Department of Agriculture,
Winnipeg, Man.
G.F. Townsend, Provincial Apiarist & Professor of Apiculture,
Ontario Agricultural College, Guelph, Ont.
P. Pankiw, Apiarist, Dominion Experimental Farm, Beaverlodge, Alta.
G.H. Austin, Apiarist, Apiculture Section, Entomological Institute,
Research Branch, Central Experimental Farm, Ottawa, Ont.
F.R. Armstrong, Supervisor, Honey & Maple Products, Fruit and Vegetable
Division, Canada Department of Agriculture, Ottawa, Ont.
J. Ferguson, Fruit & Vegetable Division, Canada Department of Agriculture,
Ottawa, Ont.

Paul Pawlowski, Manager, Alberta Honey Producers Co-Operative Ltd.,
Edmonton, Alta.
Frank Garland, Manager, Manitoba Co-Operative Honey Producers Ltd.,
Winnipeg, Man.
S.L. Hand, Porcupine Plain, Saskatchewan
E.M. Strad, Arborfield, Saskatchewan

GUESTS PRESENT:

L.F. Burrows, Secretary-Manager, Canadian Horticultural Council,
Ottawa, Ontario
Mrs. Harriett Grace, Director, American Honey Institute,
Madison, Wisconsin, U.S.A.
W.J. Jack, The Continental Can Company Limited, Calgary, Alberta

Beekeepers' Report - 2

President Victor Mesley called the general meeting to order on Tuesday, November 24, at 9:00 a.m. He welcomed the representatives and consultants, and introduced the Secretary-Manager of the Canadian Horticultural Council, Mr. L.F. Burrows. Mr. Burrows expressed his satisfaction in the new secretarial service arrangements and outlined the history and services of the Canadian Horticultural Council.

The Secretary read the Notice of Meeting.

The President appointed scrutineers: P.F. Pawlowski and S.L. Hand.

Moved by Pugh, seconded by Allen, and carried:

1. THAT the minutes of the December 1 - 3, 1958, Annual Meeting be adopted as amended.

Moved by Pugh, seconded by Horsburgh, and carried:

2. THAT the audited Financial Statement for the year ending January 31, 1959, be approved. (Refer to Appendix, Section I)

Moved by Pugh, seconded by Harvey, and carried:

3. THAT the audited Financial Statement for the period February 1, 1959, to October 31, 1959, be approved. (Appendix II)

President Victor Mesley presented the following report of the Executive on the affairs of Council:

"It has been a privilege and a honor to work with Council this past year and now I am pleased to report to Council on behalf of your Executive.

This is a time of change. We are faced with changing conditions in marketing and merchandising, and we must become more aware of this and the need for increased efficiency in production and marketing in the Beekeeping Industry. We can no longer obtain satisfactory results for our Industry by working alone. We must affiliate with organizations which realize the value of bees to our economy through pollination.

The Canadian Beekeeping Industry is being faced with lower priced bulk honey importation from the United States. This situation has been brought about by lower prices on the World Market which caused prices to go down in the United States enabling independent packers of honey to buy United States honey for less than they had been paying for Canadian Honey. There was little we could do to improve the world price situation, so the only direct action we could take was to try to obtain protection for Canadian Beekeeping against lower priced imports.

"Your executive took action to prepare a presentation to the Minister of Agriculture, the Hon. Douglas Harkness. We endeavoured to lay a suitable groundwork so that our situation would be thoroughly understood by the Government. We had interviews with John Charlton, M.P., Hayden Stanton, M.P., Chairmen of Agricultural Committee of House of Commons, and H.C. White, M.P., These gentlemen assisted us in arranging appointments and accompanied us when we made our presentation. They also spoke with the Prime Minister and the Minister of Agriculture on our behalf.

We realized the the only basis on which we could ask for consideration and assistance was that the economy of the country was dependent on its Beekeeping Industry for pollination of fruit, vegetable and seed crops in Canada. Therefore, we discussed the situation with the Canadian Seed Growers Association, the Canadian Federation of Agriculture, who fully supported us and assisted with our presentation.

Mr. Pugh and I visited the Canadian Horticultural Council Annual Meeting at Ottawa and were pleased to learn that the Horticultural Council was very much concerned about pollination in Canada.

As Mr. Harkness was ill at the time of our presentation, we made our presentation to Government Officials and Members of the Agricultural Stabilization Board. We followed this up with several interviews with the Deputy Minister, Dr. J.G. Taggart, Messrs. L.W. Pearsall, A. Turner, S.J. Chagnon, and other members of their staff. At these interviews, we were accompanied and assisted at various times by Messrs. H.O. White, J. Charlton, D. Kirk (of the Canadian Federation of Agriculture), J.R. Burns and L.F. Burrows (of the Canadian Horticultural Council).

The Government officials explained that they were unable to give us any assistance to obtain an increased duty or temporary embargo, nor to establish a value for duty or any direct protection against lower priced importations of honey.

Finally they gave us a support price of 13.5¢ per lb. based on White Honey which is 104% of parity based on the last ten years average price. This was increased from 12¢ for the 1958 crop of honey.

To follow the instructions given at Council Meeting in 1958, re: Executive Director, arrangements were made and the Canadian Horticultural Council was retained to take over the duties of Secretary-Treasurer for the Canadian Beekeepers' Council. The offices of the Canadian Beekeepers' Council will now be at the Canadian Horticultural Council office in Ottawa. We believe that this will be one of the main milestones of progress in the history of the Canadian Beekeepers' Council. The Canadian Horticultural Council is very much concerned over the problem of pollination and they believe that we can work together to the benefit of both our Industries. We operate under the same Act, "Fruit, Vegetables & Honey Act", and deal with the same branches of the Canada Department of Agriculture. We gain the advantage of joining a respected, well-established Council, with knowledge and experience. Publicity opportunities will be greater and can be taken advantage of more readily. The very excellent foundation which our Council has built under the guiding hand of Mr. Pugh can be built on securely and with the cooper-

ation of the Canadian Horticultural Council, the Canadian Beekeepers' Council can fulfill more adequately the purposes for which it is organized. The work, time and worry which Mr. Pugh has put into his position as Secretary-Treasurer of the Canadian Beekeepers' Council during these past 20 years is greatly appreciated by the Council Members and the Beekeepers of Canada.

One of the important things which Council was able to do this year was the inclusion of Beekeepers as being eligible for Farm Improvement Loans. This was promised to Mr. Syd Lye, the Past President of Council, so we held several interviews with Government officials to be sure that it was fully understood why Beekeepers should be eligible for Farm Improvement Loans. This should be of considerable assistance to Beekeepers.

Discussions were held with Food and Drug authorities to acquaint them with the necessity of protection for the word "Honey". One example of protection given was that a product "Honey Flavoured Syrup" was taken off the market, when a food company tried to introduce it as a new commodity. There is need of further work to be done to more adequately protect the word "Honey". Mr. Armstrong has been of great assistance to us in this regard in the past and is much concerned about future protection. He was of great assistance in the past year.

Council has expanded its work on Honey Publicity. The Federal Government assisted us this fall with a grant of \$10,000.00 for publicity purposes. If our own Industry had been supporting Council with finances in a more adequate manner, we probably would have been able to obtain greater assistance.

Council has established closer liaison with other organizations which are interested in the value of Bees for pollination.

The Canadian Audubon Society, which is the parent organization of conservation societies in Canada, is greatly interested in Honey Bees for pollination of the wild flowers and other natural vegetation of Canada. The wild pollinators have been depleted by the agricultural and forest management use of chemical sprays - pesticides, herbicides and fungicides.

The Canadian Seed Growers Association, when we visited them, requested information which they could use for publication in their bi-monthly publication "The Seed Scoop". The cover of one monthly issue had a picture of beehives in a clover field. This issue had several articles concerning pollination and other issues also cover the subject.

The Canadian Federation of Agriculture assisted us as stated previously, and are ready to do what they can to assist us in the future.

The Bee Division of the Central Experimental Farm under the new reorganization, is known as "Agriculture Section, Entomological Institute, Research Branch, Central Experimental Farm, Ottawa. It is very important that the Canadian Beekeepers' Council be fully aware of the research work being done on behalf of the Industry and that we more adequately express our appreciation of, and concern with the work being done in research institutions across Canada. We are pleased that we have had a small part in fostering closer cooperation with Provincial and Federal Research Institutions, and that this cooperative attitude is quite evident.

"The future plans of the Canadian Beekeepers' Council, as I see it, will be to work closely with the Canadian Horticultural Council, to investigate Freight Rates for Honey, prepare and present a brief to the Minister of Finance for increased protection for honey against low priced imports.

Council intends to take advantage of publicity opportunities and explore possibilities for publicity in cooperation with other organizations.

The Honey Marketing situation has firmed in the United States, as much as 2¢ per lb. and more in Western States. The World situation has also firmed and Honey is moving. So it seems to me that we have reached the bottom of the cycle and are now on our way up again to firmer prices."

Moved by Mesley, seconded by Graham, and carried:

4. THAT the report of the Executive be adopted.

Moved by Read, seconded by Allen, and carried:

5. THAT the general meeting sanction the action of its Executive in obtaining the services of the Canadian Horticultural Council, Ottawa, who have been retained as Secretary-Treasurer of the Canadian Beekeepers' Council.

Moved by Burnett, seconded by Reed, and carried:

6. THAT the Council approve the following amendment to its By-laws, in connection with the new Secretariat and the new executive position on Council.

(The following refers to the various sections changed, by number)

III OFFICE

- 1) Head Office - the Head Office of the Corporation shall be situated in Ottawa, Ontario

V. FISCAL YEAR

The fiscal year of the Corporation shall terminate on the last day of October, each year.

XVIII - THE EXECUTIVE

- (1) Composition - The affairs of the Corporation shall be administered by the Executive, which shall be made up of the President of the Corporation, the Vice-President of the Corporation, and one other, who shall be elected at the annual general meeting. Only persons qualified to act as the delegate of any ordinary member may be elected.

- (2) is deleted.

XIX - POWERS OF EXECUTIVE

D) Hiring of Employees

At its discretion, hire, dismiss, replace, suspend any or all temporary or permanent employess of the Corporation, including the Secretary-Treasurer, determine their salary, and also the amount and nature of the bond which any of them may be required to furnish.

XXI - BANKING AND SIGNING OFFICERS

- 2) Signature - All cheques, notes, drafts, shall be signed by the Secretary-Treasurer of the Corporation.

XXIV - OFFICERS OF THE CORPORATION

(2) The Secretary and the Treasurer

- A) Appointment - An individual or business association may be appointed to the position of Secretary-Treasurer of the Corporation by the Executive, as outlined in Section XIX, 2), D).

B) Duties and Functions

9. Disbursements - He shall disburse or have disbursed the funds of the Corporation in accordance with the instructions given to him by the Executive and he shall receive and keep receipts therefor and he shall account to the President and to the Executive as often as they may require. He shall sign all cheques of the Corporation.

Moved by Pugh, seconded by Allen, and carried:

7. THAT the banking resolution be approved and signed by the President and Secretary.
8. H.C. Allen presented and moved the adoption of the report of the C.N.E. and Royal Winter Fair Committee, seconded by Harvey and carried. (Appendix III).

Alan Graham presented the report of the Grading Committee and their recommendations in the form of five resolutions. These were discussed at length.

Moved by Graham, seconded by Reed, and carried: (opposed vote, O.Paradis)

9. THAT the proposed standards for grades for Packed Honey and for Bulk Honey as accepted by the Canadian Beekeepers' Council (as recorded in the minutes of the 1958 annual meeting) be adopted, and that the Canadian Beekeepers' Council request the Canada Department of Agriculture to bring the proposed standards into force as soon as possible.

Moved by Graham, seconded by Reed, and carried:

10. THAT a Committee of Council secure suitable regulations for the definition of "Chunk Honey" or "Comb Honey in Glass" in consultation with the Food & Drug Division of the Department of National Health and Welfare.

Moved by Graham, seconded by Allen, and carried:

11. THAT the Canadian Beekeepers' Council request the Canada Department of Agriculture to adopt the color classification now used for shipments of honey out of Canada, to shipments of bulk honey made in Canada.

Beekeepers' Report - 7

Moved by Graham, seconded by Harvey, and carried:

12. THAT while the Canadian Beekeepers' Council recognizes the problems in enforcing inter-provincial movements of honey being peddled by beekeepers directly to the consumer without required registration, that Council request the Canada Department of Agriculture to give consideration to better enforcement of Regulation 90 under the authority of the Fruit, Vegetables and Honey Act.

Moved by Graham, seconded by Hodgson:

13. THAT where the word "Pasteurized" on processed honey is no longer desirable, therefore, be it resolved that the word "Pasteurized" be deleted and replaced with the letter "P".

After considerable discussion, the motion was re-phrased and presented as an amendment.

THAT whereas there is divergence of opinion as to the advisability of the use of the word "Pasteurized" on honey labels,

THEREFORE BE IT RESOLVED that Section 85 of Subsection (g) of the Regulations under the Fruit, Vegetables & Honey Act be amended to read:

"The word 'Pasteurized' in conjunction with etc., may be declared on the package at the discretion of the honey packer, if the honey was pasteurized in an establishment registered with the Department of Agriculture!"

The motion was discussed by all representatives and as a result it was moved by Mr. Pugh, seconded by Mr. Paradis, and carried that the motion be tabled for one year.

Moved by Graham, seconded by Pugh, and carried:

14. THAT the Grading Committee Report be adopted as amended.
15. G.W.H. Reed presented and moved the adoption of the Statistics Committee report (Appendix IV), seconded by Horsburgh, and carried.
16. M. Harvey presented and moved the adoption of the Honey Competitions Committee Report (Appendix V), seconded by Kitson, and carried.

Moved by Burnett, seconded by Reed:

17. THAT the "Commercial Class" be deleted from the prize list of the Royal Agricultural Winter Fair.

(Motion Defeated)

Moved by Henry, seconded by Reed, and carried:

18. THAT the winner of the Canadian Beekeepers' Council shield and all other prize winners at the major honey competitions, receive letters of congratulation from the Secretary.

Beekeepers' Report - 8

G.H. Austin presented a report on Honey Uses (Appendix VI), moved by Graham, seconded by Harvey, and carried:

19. THAT the Honey Uses report be adopted.
20. H.W. Kitson presented and moved the adoption of the Marketing Legislation Committee Report, seconded by Allen and carried. (Appendix VII)
21. J.C. Read presented and moved the adoption of the Pollination Committee Report (Appendix VIII), seconded by Paradis and carried. The meeting recognized the special importance of this subject to Canadian Beekeepers and discussed the report at length.

Moved by Pugh, seconded by Paradis, and carried:

22. THAT the Secretary write to J.R. Methot, the Provincial Apiarist in Quebec, expressing Council's pleasure to learn of his recovery from his serious illness.

In the evening, many of the Representatives attended the Annual Meeting of the Canadian Honey Packers Association.

WEDNESDAY, NOVEMBER 25, 1959

Mr. Pugh presented the Executive Report on the National Honey Publicity Campaigns now underway. He introduced Mrs. Harriett Grace, who explained the work and success of the American Honey Institute in the Promotion of Canadian Honey. The Canadian Beekeepers' Press Releases are now being used by the food editors of many national magazines, some 36 major newspapers and over 75 radio and TV stations.

The representatives were requested to make their local organizations aware of the fund of pictures, booklets, point of purchase banners and posters that are available at the American Honey Institute and to encourage all Beekeepers to order these supplies for distribution to all possible retail and wholesale outlets.

Mrs. Grace was thanked by the President.

Moved by Pugh, seconded by Horsburgh, and carried:

23. THAT the Publicity Report of the Executive be adopted.
24. J.F. Hodgson presented and moved the adoption of the Council Publicity and Public Relations Committee Report (Appendix IX), seconded by Harvey and carried.

Moved by Burnett, seconded by Reed, and carried:

25. THAT the Executive act as a committee with the Executive of the Canadian Association of Apiculturists to fully explore the possibility of Beekeeping Publicity through the industry-wide publication suggested in the Publicity Report (24) and that the Executive be empowered to carry out the recommendations of the Committee.

The election of the Officers and of the Executive Member for the year 1959-60 was conducted by G.J. Townsend. The following were elected without opposition:

President - Victor Mesley
Vice-President - Alan Graham
Executive Member - Roy M. Pugh

Moved by Allen, seconded by Paradis, and carried:

26. THAT Victor Mesley act as the Council's representative to the Canadian Horticultural Council.

Moved by Allen, seconded by Reed, and carried:

27. THAT R.M. Pugh attend the American Honey Institute Annual Meeting at Council's expense.

Moved by Graham, seconded by Allen, and carried:

28. THAT Mr. Karl B. Conger, Ottawa, be appointed auditor for the financial year November 1, 1959, through October 31, 1960.

G.F. Townsend and G.H. Austin presented the Research Report of the Canadian Association of Apiculturists. (Appendix XIV)

Moved by Meilicke, seconded by Burnett, and carried:

29. THAT the Research Report of the Canadian Association of Apiculturists be adopted.

Moved by Meilicke, seconded by Graham, and Carried:

30. THAT the Research Committee of Council function in conjunction with the Canadian Association of Apiculturists, with the Council Research Committee collecting information from beekeepers as to what type of research they would like to have done. These requests should be presented to senior government authorities by Council. An appointee of the Canadian Association of Apiculturists should continue to present a report to Council on current research.

Moved by Meilicke, seconded by Harvey, and carried:

31. THAT the Canadian Beekeepers' Council contact the appropriate Federal authorities with regard to all chemicals used in pesticides, herbicides and fungicides registered under Federal Legislation, and request that all labels on all containers of such chemicals carry information as to their toxicity to bees.

Moved by Meilicke, seconded by Reed, and carried:

32. THAT the Canadian Beekeepers' Council take an active interest in the efficiency of honey packing equipment and the proper rating of such, so as to conform to proper labor laws where such equipment is offered for sale in Canada. And that they insist that definite specifications and ratings of such honey processing equipment be stated by the manufacturer.

Moved by Meilicke, seconded by Allen, and carried:

33. THAT the Canadian Beekeepers' Council compile a complete list of all Legislation in Canada affecting the Beekeepers, e.g., farm loans, unemployment insurance, sales tax exemptions, preferential tariff rates, duty free equipment, etc.

Moved by Meilicke, seconded by Allen, and carried:

34. THAT the Canadian Beekeepers' Council be interested in the efficiency and safety of extracting and packing equipment offered by bee supply firms for the purpose of handling their own honey.

Moved by Meilicke, seconded by Graham, and carried:

35. THAT the Canadian Beekeepers' Council take every step possible to obtain a grant of approximately \$2,500.00 per year from the Canadian Government or one of its agencies, as Canada's share toward the support of the Bee Research Association - a voluntary, world-wide, abstracting, translating and publishing organization concerning research related to beekeeping and associated fields.

AND FURTHER that the Canadian Beekeepers' Council continue its present support of the Bee Research Association.

Moved by Meilicke, seconded by Reed, and carried:

36. WHEREAS work is being done on Biological Control of Harmful Insects and Diseases, and

WHEREAS this approach to our problem gives much promise for adequate control and a reasonable solution,

THEREFORE BE IT RESOLVED that appreciation be expressed to proper authorities for such work being done and that encouragement and increased support be given to this very excellent work and that this work be expanded greatly and the results published in a manner which would encourage the adoption of suitable procedures for use.

Moved by Meilicke, seconded by Kitson, and carried:

37. WHEREAS it is felt that there is insufficient knowledge as to the consumer preference in types of honey packs,

THEREFORE BE IT RESOLVED that the proper authorities be requested to conduct a consumer survey and that these results be made available.

Moved by Meilicke, seconded by Harvey, and carried:

38. WHEREAS it is thought that Rape Seed matures much sooner when pollinated by honey bees and where this in some cases could mean a difference between a crop or no crop, and

WHEREAS there is a greater uniformity of seed reported,

THEREFORE BE IT RESOLVED that the Canadian Beekeepers' Council request that more research be conducted in this regard.

Moved by Meillicke, seconded by Burnett, and carried:

39. WHEREAS in the spraying for harmful insects, helpful insects are being destroyed,

THEREFORE BE IT RESOLVED that the Canadian Beekeepers' Council ask the proper authorities to conduct a survey to determine to what extent the natural balance of nature is being affected by these sprays.

Moved by Meillicke, seconded by Allen, and carried:

40. WHEREAS it is feared that more and more residual toxic materials harmful to humans are being found in and on foods due to the use of spray materials and other agricultural chemicals,

THEREFORE BE IT RESOLVED that research be conducted to determine the extent of the harmful affects of these materials.

41. C. Meillicke presented and moved the adoption of the report of the Research Committee (Appendix X), seconded by Harvey and carried.

On Wednesday evening, the Government of Saskatchewan presented a banquet honoring the Canadian Beekeepers' Council. The Hon. L.F. McIntosh, Minister of Municipal Affairs, was the guest speaker. He extended a welcome on behalf of the Province and outlined the future of commerce, agriculture and beekeeping on the prairies. R.M. McKenzie, Director of the Plant Industry Branch, Saskatchewan Department of Agriculture, greeted the representatives and their wives before introducing Mr. McIntosh.

Mr. F. Garland officiated at a presentation to Mr. Roy M. Pugh, past Secretary-Treasurer of the organisation, and to Mrs. Pugh. Mr. Pugh was commended for his years of service to the Beekeepers in Canada and was credited for his work in organising and holding together the Canadian Beekeepers' Council. The gifts presented were: a silver tray bearing facsimiles of the signatures of the Past-Presidents of Council, two bridles, and flowers for Mrs. Pugh.

THURSDAY, NOVEMBER 26, 1959

42. M.S. Horsburgh presented and moved the adoption of the report of the Stock Containers Committee (Appendix XI), seconded by Graham and carried.

Moved by Pugh, seconded by Kitson, and carried:

43. THAT the Continental Can Company be advised that the Council desires that the stock container label be revised, and

THAT the Company work with the Stock Container Committee, through the Secretary so that suggestions can be approved at an early date.

44. E.J. Burnett presented and moved the adoption of the Package Bees Committee report as amended (Appendix XII), seconded by Kitson, and carried.

Moved by Harvey, seconded by Paradis, and carried:

45. THAT Council congratulate Mr. Ed. Bland upon the timeliness and quality of the honey bee exhibit which he had prepared and which has been displayed in extension work in his Province.

Moved by Harvey, seconded by Read, and carried:

46. THAT whereas the Calgary Stampede attracts many thousands of visitors and whereas the Stampede offers an excellent opportunity for honey promotion,
THEREFORE BE IT RESOLVED that the Canadian Beekeepers' Council sponsor a Beekeeping exhibit at this show.

Moved by Harvey, seconded by Graham, and carried:

47. THAT the Exhibitions and Fairs Committee re-examine the displays at the Canadian National Exhibition and the Royal Agricultural Winter Fair with the object of improving these displays.

Moved by Harvey, seconded by Graham, and carried:

48. THAT the Exhibition Score Cards be revised and made available.

Moved by Horsburgh, seconded by Burnett, and carried:

49. THAT the Secretary convey the appreciation of the meeting to B.C. Tree Fruits Limited, who had generously donated a box of McIntosh apples to the delegates.

Moved by Mesley, seconded by Read, and carried:

50. THAT the Council show its appreciation to the consultants in attendance by presenting a chairman's gavel to the Canadian Association of Apiculturists.

Moved by Graham, seconded by Read, and carried:

51. THAT Council extend a unanimous vote of thanks to Mr. R.M. Pugh of Tisdale, Sask., for his continuing service to Canadian Beekeepers, and in particular for his many years of service as Council's Secretary-Treasurer.

Moved by Graham, seconded by Read, and carried:

52. THAT Council extend a unanimous vote of thanks to Mr. H.C. Allen of Toronto for his years of active participation as a representative of his province, and in particular for his interest in the National Exhibition Displays.

Moved by Mesley, seconded by Graham, and carried:

53. THAT Council extend a letter of appreciation to the Continental Can Company for its assistance in our work and for the luncheon presented by their representative Mr. W.J. Jack.

Moved by Graham, seconded by Paradis, and carried:

54. THAT the report of the Canadian Honey Packers' Association which had been presented by Mr. Garland, be adopted.

Moved by Meillicke, seconded by Read, and carried:

55. THAT Council Executive fully explore and if possible promote the national publicity tour of an international figure who would advertise Canadian Honey. This motion resulted from the meeting with the Canadian Honey Packers Association.

Moved by Harvey, seconded by Reed and carried:

56. THAT the Executive explore the possibilities of further joint promotion campaigns with the Dairy Council of Canada, and make reprints of the bulletin, "Milk and Honey" available to the public.

Moved by Read, seconded by Harvey, and carried:

57. THAT Council approach the Dominion Bureau of Statistics requesting that statistics on pollination be obtained and published.

Moved by Hodgson, seconded by Meillicke, and carried:

58. THAT in view of the fact that the financial support of the Council is now based on the 1/10¢ levy, rather than on the 1/5¢ as in the past, that Council take every effort to encourage direct support from all Beekeepers.

The Executive recommended: "THAT Council consider the advisability of re-instating the 1/5¢ levy at an early opportune time, after adequate support has been assured."

Moved by Read, seconded by Reed, and carried:

59. THAT Council express unanimous support of this recommendation from its Officers.

The following budget for the fiscal year 1959-60 was presented by Mr. Pugh and explained thoroughly.

BUDGET 1959-1960

PUBLICITY

American Honey Institute		\$ 3,500.00	
Special A.H.I. Publicity	10,000.00		
less 1959 portion	<u>3,000.00</u>	<u>7,000.00</u>	10,500.00
Council News & Publicity			1,200.00
Honey Exhibits			<u>1,500.00</u>
			13,200.00
British Bee Research Assn.		150.00	
Canadian Horticultural Council		300.00	
Audubon Society		10.00	
Apimondia		15.00	
Maritime Beekeepers' Assn.		150.00	
Sunday		<u>50.00</u>	675.00
Secretary		2,000.00	
Steno, Rent, Etc.		1,800.00	
Stationery		150.00	
Telephone-Telegraph		100.00	
Postage		<u>150.00</u>	4,200.00
Annual Meeting		2,500.00	
Minutes		450.00	
Travel (Sec., Executive, Committees)		<u>2,000.00</u>	<u>4,950.00</u>
			<u>23,025.00</u>

Moved by Allen, seconded by Paradis, and carried:

60. THAT the budget be adopted as presented.

Moved by Meilicke, seconded by Hodgson, and carried:

61. THAT the Executive be given full authority to re-invest the Reserve Fund to the best advantage of Council.

The President announced the following list of Committees for the 1959-60 year, explaining their functions under the terms of reference set out in (Appendix XIII).

1. C.N.E., Royal Winter Fair and General Exhibitions Committee:
M. Harvey (Chairman), P.F. Pawlowski, Ed Bland
2. Statistics: G.W.H. Reed
3. Grading: Paul Ubrin (Chairman), P.F. Pawlowski, J. Edmunds
4. Honey Uses: G.H. Austin
5. Pollination: J.C. Read (Chairman), Geo. Reed, M.S. Horsburgh
6. Publicity and Public Relations: J.P. Hodgson (Chairman), R.M. Pugh,
D. McCutcheon, P. Burke
7. Research: E.J. Burnett (Chairman), D.R. Robertson, A. Graham
8. Stock Containers: M.S. Horsburgh
9. Package Bee and Queen Clearance: C. Meilicke

Moved by Meilicke, seconded by Harvey, and carried:

62. THAT a vote of appreciation be given to Mr. McCutcheon for his efforts in arranging the meeting in Regina and for arranging the reception on Wednesday evening.

Moved by Read, seconded by Horsburgh, and carried:

63. THAT a letter of appreciation be sent to the Province of Saskatchewan thanking the officials for the banquet held for Council, and for the work of Messrs. McCutcheon and Bland.

Messages of greeting were received from Mr. Turnbull and Mr. Wilkinson, former representatives.

Moved by Pugh, seconded by Harvey, and carried:

64. THAT the next Annual Meeting be arranged for Ottawa late in November or early December 1960 - dates to be announced shortly by the Executive.

Moved by Meilicke, seconded by Reed, and carried:

65. THAT the Executive explore and if possible accept the kind invitation extended by Mr. Horsburgh on behalf of the Maritime Beekeepers' Assn. that Council hold its 1961 Annual Meeting in Kentville, N.S.

Moved by Pugh, seconded by Meilicke, and carried:

66. THAT the Honorary Members be extended membership for the coming year.

Moved by Burnett, seconded by Kitson, and carried:

67. THAT a letter of appreciation be sent to the Canadian Association of Apiculturists for their continued and renewed support and encouragement.

F. Garland expressed words of appreciation on behalf of the consultants and guests present. He referred to the definite progress made in the past year and complimented President Mesley in particular for his untiring efforts on behalf of the Industry.

J. Edmunds presented the following motion on behalf of the Canadian Association of Apiculturists:

WHEREAS the Canadian Association of Apiculturists made extensive recommendations to the Canadian Beekeepers' Council in 1958, and

WHEREAS these recommendations have been generally implemented by the Council, the Canadian Association of Apiculturists wishes to extend its sincere appreciation and confidence in the manner in which Council has executed its responsibilities to Canadian Beekeepers in 1959.

J. Corner expressed a "lusty and hearty vote of thanks" to Ed Bland for his efforts in attending to the needs of the delegates while in Regina.

THE CANADIAN BEEKEEPERS' COUNCIL
Tisdale, Saskatchewan

STATEMENT OF REVENUE AND EXPENDITURES
for the year ended January 31, 1959

Revenue:

Container levy - Continental Can. Co.Ltd.		\$ 6,831.11
Interest - Dominion of Canada Bonds	542.40	
- Tisdale Savings & Credit Union	258.68	801.08
United States draft commission		24.38
Patronage refund on fidelity bond		3.75
		7,660.32

Expenditures:

Advertising	15,052.33	
less: Dom. Government Grant	14,908.53	143.80
Publicity - Amer. Honey Institute		3,500.00
Honey exhibits		1,276.52
Trophies		158.35
Travel		1,801.25
Grants -		
Maritime Beekeepers' Assn.	226.80	
British Bee Research	150.00	
Apimondia	27.65	404.45
Administration -		
Stationery & printing	104.17	
Postage	74.21	
Telephone & telegraph	194.45	
Salaries - office	800.00	
- Sec. Treas.	1,000.00	1,800.00
Exchange	10.46	
Interest	76.24	
Annual Meeting	2,876.53	
Printing re annual meeting	275.00	
Safety deposit box	5.00	
Audit	50.00	
Subscriptions	3.20	
Fidelity bond	25.00	
Flowers	18.00	5,512.26
		12,796.63
EXCESS OF EXPENDITURES OVER REVENUE		5,136.31

STATEMENT OF FINANCIAL CONDITION as at January 31, 1959

ASSETS:

Cash on deposit		
Bank of Nova Scotia, Tisdale, Sask.	1,926.00	
Tisdale Savings & Credit Union Ltd.	5,399.88	7,325.88
Interest Receivable, Dom. of Canada Bonds		279.75
Dominion of Canada "Bearer" bonds		15,000.00
		22,605.63

LIABILITIES:

R.M. Pugh - travel payable		275.02
Excess of Assets over Liabilities, Jan. 31/58	27,466.92	
Excess of Expenditures over Revenue		
Jan. 31/59	5,136.31	22,330.61
		22,605.63

THE CANADIAN BEEKEEPERS' COUNCIL
Tisdale, Saskatchewan
STATEMENT OF REVENUE AND EXPENDITURES
for the period February 1 to October 31, 1959

Revenue:

Levies - Continental Can Company Ltd.	6,971.55	
- B.C. Honey Producers	175.45	
- Ass'n Des Apiculteurs du Quebec	<u>410.00</u>	7,557.00
Interest - Dominion of Canada Bonds		<u>464.00</u>
		8,021.00

Expenditures:

Advertising	42.29	
Publicity - American Honey Institute	<u>13,000.00</u>	13,042.29
Less Dominion Government Grant	<u>10,000.00</u>	
		3,042.29
Honey Exhibits		1,045.55
Trophies		40.76
Travel		438.66
Directors expenses		1,009.15
Grants - Can. Horticultural Council	100.00	
- Audubon Society of Canada	10.00	
- Apiamondia	27.25	
- British Bee Research	150.00	
- Maritime Beekeepers Assn.	<u>117.00</u>	404.25
Administration:		
Stationery & printing	109.49	
Postage	55.42	
Telephone & telegraph	116.47	
Salaries - office	800.00	
- Sec. Treas	<u>1,000.00</u>	1,800.00
Exchange		11.56
Audit		90.00
Legal		24.00
Fidelity Bond		12.50
Sundry		<u>22.10</u>
		2,241.54
		<u>8,222.20</u>
Excess of Expenditures over Revenue		<u>201.20</u>

STATEMENT OF FINANCIAL CONDITION as at October 31, 1959

ASSETS:

Cash on deposit - Bank of Nova Scotia, Tisdale		
Bank of Nova Scotia, Tisdale	910.78	
Tisdale Savings & Credit Union	<u>5,399.88</u>	6,310.66
Grant Receivable - Dominion of Canada	10,000.00	
Advance to honey exhibits receivable	700.00	
Interest receivable - Dom. Canada Bonds	<u>106.25</u>	10,806.25
Prepaid Fidelity Bond		12.50
Dominion of Canada "Bearer" Bonds		<u>15,000.00</u>
		<u>32,129.41</u>

LIABILITIES:

Accounts Payable - American Honey Institute		10,000.00
Excess of Assets over Liabilities Jan. 31/59	22,330.61	
Excess of Expend. over Revenue, Oct. 31/59	<u>201.20</u>	<u>32,129.41</u>

REPORT OF CANADIAN NATIONAL EXHIBITION BOOTH, 1959

by H.C. Allen

The Financial Statement shows that we had about the same sale of honey as in 1958, or about \$1500 less than in the years previous to 1958. The cause of the smaller sale was the fact that we could not obtain comb honey in sufficient quantity, being short about 100 cases, from the former year. This year we are in the same position regarding sales, as all others in the food building, with the exception of those that were selling cold drinks. Their sales set a new record. All others were down all the way up to 50%.

For the first thirteen days the temperature ranged from 90 to 98 degrees in the building. People refused to carry goods on account of the heat. The general attendance at the Fair was down only 3%.

You may think that I should have consulted the Executive before spending \$200.00 on the pamphlets. I fully intended to do this when I took the matter up with the Dairy Farmers in May. It was nearly the end of June before all the details were worked out and their printing room staff went on holiday in July - I had to say "yes" or "no" right then. Due to the fact that we were getting them at half price and that they were going to distribute another 25,000 on their own, I felt that I should go ahead with it. I took up with them before coming away the idea of doing it another year if the meeting thought advisable or enlarging it so as to cover other Fairs where they could be distributed.

The Royal Winter Fair report was not completed prior to convention. We had contracted for the same space as we had last year early, but about three weeks before opening time, I received notice that I would have to move upstairs as the whole end of the building was going to be taken over for flowers. Out of the ten tenants that had to move, there were only three that got space upstairs and I was given first choice. The space is small - only eight feet frontage - but it was the best available. Our sales will be down considerably, I do not know why, except that moving might be partly to blame. General attendance was down, as well.

RECONCILIATION STATEMENT

Funds advanced by Council -			
Cash advance	700.00		
Payment of rent & selling privileges	<u>845.00</u>	1,545.00	
deduct:			
Net Deficit on operations		<u>1,184.53</u>	
Balance to be accounted for			<u>360.47</u>
The balance shown above is made up of the following:			
Cash in bank	591.53		
Prepaid rent for Royal Winter Fair	160.00		
Inventories:			
Honey	575.86		
Shopping bags	<u>322.08</u>	897.94	
TOTAL ASSETS			1,649.47
Deduct -			
Accounts Payable - L.A. Inkster	10.00		
H.C. Allen	40.00		
G. Stewart	924.00		
W.C. Maguire	<u>315.00</u>	<u>1,289.00</u>	<u>360.47</u>

THE CANADIAN BEEKEEPERS' COUNCIL

DISPLAY BOOTH

CANADIAN NATIONAL EXHIBITION

YEAR 1959

OPERATING ACCOUNT

			<u>1958</u>
Sales		4,034.09	4,067.50
Cost of Sales -			
Honey purchased	3,657.05		
less - Inventory on hand	<u>575.86</u>	<u>3,081.19</u>	<u>2,896.67</u>
		952.90	1,170.83
EXPENSES OF OPERATION:			
Audit	10.00		
Bank Charges	5.35		
Booth	1,015.77		
Food Assn. Dues	15.00		
Freight	49.23		
Management	300.00		
Telephone	.80		
Wages	<u>335.48</u>	<u>1,731.63</u>	<u>1,946.65</u>
Deficit		778.73	775.82
ADVERTISING:			
Food Periodical	205.80		
Pamphlets	<u>200.00</u>	<u>405.80</u>	
		<u>1,184.53</u>	

APPENDIX IVHONEY STATISTICS FOR CANADA

	Beekeepers No.	Colonies No.	Production Per Colony (lbs.)	Total Production (000 lbs.)	Price per Bulk lb. to Producer ¢	Total Value (000\$)
1956	14,410	330,000	74	24,272	18	4,419
1957	15,040	325,700	98	32,051	18	5,906
1958	13,150	322,700	83	27,509	17	4,632

BEESWAX

	Production	Average Farm Price \$ per lb.	Total Farm Value
1957	473,000	.53	\$ 253,000
1958	408,000	.46	\$ 187,000

CANADIAN STOCKS OF HONEY
(000 lbs.)

	<u>1958</u>	<u>1959</u>
March 31	-	11,204
June 30	10,404	9,067
Sept. 30	-	13,155
Dec. 31	12,992	-

HONEY STATISTICS - UNITED STATES

Number of colonies - 1959	5,437,000
Av. yield per colony 1952-58	44.5 lbs.
" " " " 1959	45.6 lbs.
Total production 1952-58 (av.)	241,169,000 lbs.
" " 1959	247,885,000 lbs.

	<u>1957</u>	<u>1958</u>
Average Price of Honey to Farmer	18.7¢	17.4¢
Value of Honey Production	\$45,578,000	\$46,231,000
Av. Price of Beeswax to Farmer	57¢	46¢
Value of Beeswax	\$ 2,567,000	\$ 2,205,000

IMPORTATION OF PACKAGE BEES

	<u>No. of Packages</u>	<u>Value \$</u>
1957	138,589	507,661
1958	139,728	525,017

IMPORTS INTO CANADA OF HONEY AND BEESWAX

	<u>HONEY</u>		<u>BEESWAX</u>	
	Quantity lbs.	Value \$	Quantity lbs.	Value \$
1958	4,842,870	700,918	246,176	148,376
1959 (Jan-May)	2,379,409	323,703	176,226	95,763

EXPORTS FROM CANADA OF HONEY AND BEESWAX

	<u>HONEY</u>		<u>BEESWAX</u>	
	Quantity lbs.	Value \$	Quantity lbs.	Value \$
1958	244,644	39,952	53,218	37,200
1959 (Jan-May)	144,169	27,658	9,610	5,319

HONEY COMPETITIONS AND EXHIBITIONS REPORT
by M. Harvey

Before giving the report on the various provinces, I would like to refer back to last years minutes and recommendations for this committee.

1. That Council appoint a committee to compile a list of Fairs and Exhibitions in Canada that have open competitions for honey, the list also to contain open competitions outside of Canada, and the compiled list to be forwarded to all Provincial Associations and Provincial Apiarists.

I wrote quite a number of letters asking help or suggestions but gained very little except from Dr. Eva Crane, England. She was quite interested in compiling a list of Fairs where Canadian honey could be shown she has been working on this list since May but we have not heard recently just what has been accomplished.

2. That Council give consideration to contributing towards the establishment of a Premier Exhibition Award, Grand Champion Showman at the Canadian National Exhibition and the Pacific National Exhibition, similar to what was established for the Royal Winter Fair.

Mr. R. Craighead of F.W. Jones & Son, Bedford, Quebec, donated Rose Bowl Trophies for the best beeswax in Pacific, C.N.E. and Royal Winter Fairs, if a person should win it three times in succession, it will remain his property.

3. That Council continue to support the publicity of honey at Fairs and Exhibitions.

To my knowledge they are doing so.

4. That in the Score Card for Liquid Honey - Item 2 in points of reference is amended with respect of level of fill to read - "The air space should not be visible under the lower edge of the lid when tightly on."
5. That in Rule 9 of the Honey and Maple Syrup Section of the Royal Winter Fair Prize list, the word "Standard" be replaced with the word "Honey".

Recommendations 4 and 5 have been adopted.

BRITISH COLUMBIA

The main exhibition at which honey was shown this year was once again the Pacific National Exhibition. The number of entries at the P.N.E. honey show totalled 112, with well over two tons of honey on display. Entries were received from the Provinces of Saskatchewan, Alberta and British Columbia.

As usual, the Interior Provincial Exhibition which is held at Armstrong attracted a large number of entries. These entries were predominately 4-H or junior beekeeper entries. At the P.N.E. there were 6 entries in the 30 lb. junior beekeeper class. 4-H members entered and took prizes in the 50 lb. exhibit, novice class and liquid classes open. A 4-H member from the Armstrong 4-H Honeybee Club won the Canadian Beekeepers Council Shield awarded for the best liquid honey in the show. Another 4-H Club member won

1st in the honey judging competition at Armstrong Fair. There were 40 4-H entries in the three jar class, and at the judging competitions at which honey is one of the products to be judged, over 300 members judged honey. Four displays were set up by the 4-H Honeybee Clubs and one excellent beekeeping and honey display by the Penticton F.F.C.

Really fine honey shows were staged at the following fairs: Langley, Cowichan, Creston, Penticton, Chilliwack, Cloverdale, Salmon Arm (outstanding) and Saanichton, also outstanding for smaller fairs.

Classes for entering honey are open in many of the smaller agricultural fairs throughout the province.

The Canadian Beekeepers' Council Silver Cup awarded for the best granulated honey in the show was won by Harold Baker, Box AA, Fielding, Sask.

At all of the fairs a large amount of literature on honey and honey products was distributed. Special thanks for this service are due to Mr. P. Hodgson and BEECEE Honey.

The value of fairs and exhibitions as a show window for honey and honey products is of the highest order. The Canadian Beekeepers' Council and all beekeeping organizations across Canada should do everything possible to promote and sustain this valuable work. Too often in the past this important responsibility has been left to a few volunteers who have done excellent work with very little encouragement.

MANITOBA

The two major honey shows and competitions held in Manitoba annually were at the Provincial Exhibition in Brandon and the Provincial Honey Show held in conjunction with an International Flower Show at Winnipeg.

These two honey shows contribute materially to the promotion of honey. Of particular importance is a display of foods prepared with honey. This appears to be an excellent media of promoting honey to the housewife. Visitors to the honey shows are given a leaflet of honey recipes and the opportunity to purchase honey.

SASKATCHEWAN

Interest in exhibiting honey remained at a satisfactory level in 1959. Although some of our stellar exhibitors have dropped out, others have taken their place.

There were competitions at the Regina and Saskatoon Exhibitions this year. The Regina show was the largest in recent years. Much interest was shown in displays with five beekeepers competing. The Provincial Honey Show was held this year at Prince Albert. The number of entries was disappointing but the quality of honey was excellent with several entries being near equal in quality. D. Haight, Nipawin won first in the liquid section and G. Knudsen, Porcupine Plain won first in the granulated section. Moosomin especially has an excellent honey show with a large number of entries.

We are always interested in the Canadian National Exhibition, the Royal Winter Fair and more recently, the Pacific National Exhibition. This year G.H. McAdoo, Regina, won first prize for the best comb honey exhibited at the C.N.E., while Mr. Harold Baker, Fielding, Sask., won first prize for granulated honey at P.N.E. As usual, in 1958 we had a large number of entries in the Royal Winter Fair competitions. Mr. J.E. Bland, Moose Jaw, won the challenge trophy for comb honey at that show. In 1960, we again have a large number of entries headed for the Royal. The Saskatchewan Government promotes interest in the honey competitions at the Royal and provides some assistance to the exhibitors.

ALBERTA

The Edmonton Exhibition had the most honey entries it has had for years. This was the result of a concentrated effort on promoting honey shows in the Edmonton Beekeepers' Association.

QUEBEC

Honey exhibits and competitions are held at all country fairs, regional exhibitions and the Provincial Exposition. All honey entries receiving First Prize at Country Fairs and Regional Exhibitions were entered in a competition called the "Grand Champion at Provincial". The happy winner is proclaimed the year's Honey King for the Province of Quebec.

Prize winners at the Quebec Exposition were:

- Section 1 - White honey - 6 1-lb. jars (16 exhibitors)
1st prize: Mrs. Lucie Deschamps, 82 St.Francois, Duverney, Co.Laval.
- Section 2 - Golden honey - 6 1-lb. jars (4 exhibitors)
1st prize: Mrs. J.B. Grenier, Yamachiche, Co. St-Maurice.
- Section 3 - Dark honey - 6 1-lb. jars (2 exhibitors)
1st prize: Mr. Jean-Uaul Binette, Victoriaville, Co. Arthabaska.
- Section 4 - Comb honey - 6 1-lb. sections (7 exhibitors)
1st prize: Mr. Lionel Brisson, La Gorgendiere, Co. Portneuf.
- Section 5 - Comb honey - 2 half-sections (6 exhibitors)
1st prize: Mr. Noel Blanchette, Victoriaville, Co.Arthabaska
- Section 6 - Beeswax - 3 1-lb cakes (5 exhibitors)
1st prize: Mrs. Fernande Lampron, rang St-Jacques, St-Maurice,
Co. Champlain
- Section 7 - Honey Collection (4 exhibitors)
1st prize: Mr. Claude Pothier, Yamachiche, Co. St-Maurice

GRAND CHAMPION - Provincial Grand Champion, reserved to first prize exhibits in liquid white honey at local, regional and provincial fairs. A 20 bee-hives range is required for an exhibitor to show in this class. Transportation for first prize liquid white honey exhibits at local and regional fairs is paid by the Provincial Department of Agriculture, both ways. No entry fees are required in this class.

SPECIAL CLASS - Open to every Grand Champion over the past ten years. Section specially organized by the Provincial Department of Agriculture, \$100.00 in prize.

(2 exhibitors)

1st prize: Mr. Garneau Cormier, R.R.2, Victoriaville, Co. Arthabaska.

ONTARIO

During 1959 the number of entries in honey competitions in Ontario was greater than in 1958. This was due to the good honey crop in Ontario. There was also a large entry from beekeepers outside of Ontario.

The Western Fair (London) and the Central Canada Exhibition (Ottawa) had 20 and 24 entries respectively in the honey competitions. The major prizes at these shows were won by Ian Crear, Vernon, Ont.; J.C. Blair, Ottawa, and A.C. Brady, Athabaska.

At the Canadian National Exhibition the competition was very keen, with about 50 entries. The major prizes were won by Ian Crear, Vernon; J.C. Blair, Ottawa; Henderson Apiaries, Carleton Place; G.H. McAdoo, Regina; and Byer Bros., Markham, Ontario.

The Canadian Beekeepers' Council Trophy was won by Ian Crear. The York District Beekeepers' Association Trophy was won by J.C. Corey, Toronto.

The Canadian National Exhibition competition honey (and the Royal Agricultural Winter Fair) was set up in a composite display in front of a mural depicting chain store grocery shelves and the caption "Keep Honey On Your Shopping List".

In spite of the fact there were more entries in other honey competitions in 1959 than in 1958, there were fewer entries in the 1959 Royal Winter Fair. The reduction in entries was from Ontario. The lateness of the crop resulted in beekeepers being behind schedule with their fall work.

The major prize winners were:

Class 742 - Canadian Beekeepers' Council Trophy - Best exhibit in the Show

Champion - Peter H. Johnston, St. Brieux

Reserve - Erle Byer, Markham

Class 743 - Canadian Beekeepers' Council Trophy - Best Granulated Honey

D.E. Haight, Nipawin

Class 744 - Premier Exhibition Award

Grand Champion - Ian S. Crear, Vernon, Ontario

Reserve Grand Champion - J.C. Blair, Ottawa, Ontario

Class 745 - F.W. Jones & Son Limited, Challenge Trophies

Section 1 - Extracted Honey - Peter H. Johnston, St. Brieux

Section 2 - Comb Honey - James E. Bland, Moose Jaw

REPORT OF THE HONEY USES COMMITTEE
by G.H. Austin

No new uses for honey have come to the attention of the Committee during the past year.

However, it is worth noting the USDA workers have been successful in dehydrating honey and producing a powdered form. It will be recalled that Council in 1958 requested that research be carried out with this end in view.

The new honey product has the appearance of flaked powder and is slightly yellow in color. When placed on the tongue, it melts immediately and tastes just as does ordinary honey. The honey powder must be kept in an airtight container for it is highly hygroscopic and quickly glazes over. This would seem to eliminate its use in prepared baby formulae. The process costs about 20 cents per pound and there is a loss of about 15 per cent by weight (moisture loss) in converting honey to powder. The total cost would seem to be almost prohibitive when compared with dextro-maltose and similar products for infant feeding.

We shall keep in touch with the USDA workers to see if and when this powder is marketed commercially and in what products.

REPORT OF MARKETING LEGISLATION COMMITTEE
by Harold W. Kitson

This report on marketing legislation is very brief. There is no change from last year and no immediate prospect for any change. There are two marketing boards in existence in Manitoba and Saskatchewan which are operating quietly and satisfactorily.

Small violations have been reported and corrected, and I believe that this has led to more settled prices and reduced the tendency to panic on the part of both the producer and the retailer.

REPORT OF POLLINATION COMMITTEE
by C.J. Read

One of the duties of this committee, according to our "Terms of Reference", is to gather and publish statistical evidence of the value of honey bees as pollinators. To accomplish this, we sent a circular letter to all Provincial Apiarists requesting this information. This committee is aware of the difficulties experienced in trying to gather accurate statistics but we feel that it is important that we continue to gather this information as it is one way that we have of learning whether or not we are making any headway. The publication of these statistics may also encourage more beekeepers to make greater efforts to use their colonies for pollination purposes. The following is a condensation of the replies received.

British Columbia - Crops grown in this Province which benefit from honey bee pollination are cherries, apples, and other tree fruits; small fruits such as strawberries, raspberries and blueberries; legumes such as red clovers, alsike and sweet clovers. One thousand and forty seven colonies were used on these crops but only 120 were rented. Total remuneration received was \$806.00 or an average of \$6.72 per colony.

Alberta - No actual figures were given on pollination services within the province. However, it was felt that more colonies are being rented each year. Competition between beekeepers for apiary sites works to the advantage of the grower. One local beekeepers association of the province where keen competition between beekeepers existed for many years, has been able to organize a pollination program and individual members of this association are now able to collect pollination fees and they are finding that apiary sites are easier to locate. This should be an example to beekeepers of Canada that where they are willing to organize, advertise, and be reasonable with growers, friction between individuals is relieved and the membership as a whole benefits in a material way. Also, the beekeeping industry wins more respect from the growers.

Saskatchewan - A questionnaire sent to commercial beekeepers in the province was replied to by sixty one beekeepers and of these only five had received fees for pollination. Three of these had placed bees on Cumino sweet clover which is grown under contract and where the contract demands the use of honey bees. The amount of the fees ranged from \$2.00 to \$6.00 per colony. Most beekeepers felt that growers were aware of the value of honey bees as pollinators but two-thirds of the beekeepers felt that the honey they received was sufficient payment for their services. Most of the bees are located in the northern part of the province and large acreages of legumes and rape are grown in this same area. It would appear that there is a great opportunity for organized pollination services in this province.

Manitoba - Cumino sweet clover is the only crop grown in this province where honey bees are rented. Fifty acres of this crop were grown and a fee of \$5.00 per colony was charged. It is estimated that 150,000 acres of crop which would benefit from honey bee pollination were grown in Manitoba in 1959. Sweet clover is the one crop which does not yield sufficiently well without bees, however, this crop is always well supplied with bees by beekeepers interested in honey production and the growers are therefore not interested in hiring bees.

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Ontario - Few figures are available. Fruit pollination: 3,000 colonies were rented at approximately \$7.00 per colony. Cucumber pollination: 800 colonies at a fee of \$15-20.00 per colony.

Nova Scotia - In this province approximately 900 colonies of bees were used in orchard pollination and 488 colonies were used on small fruits such as strawberries, blueberries and miscellaneous other small fruits. Fifty one colonies were used on greenhouse cucumbers and another 40 on crops such as cucumber, squash, tomato and turnip seed. Only 40 colonies were used this year on legume pollination due to the fact that most of the legumes were winter killed. All pollination was done on a strictly cash basis and the fee varied from \$10.00 down to \$6.00 depending on the crop and whether the bees were moved by the grower or the beekeeper. Some growers purchased the package bees for the beekeeper in return for the right to use the bees for pollination.

The Nova Scotia Fruit Growers Association passed a resolution requesting the continuation of research on pollination. The actual research work is carried on by the Provincial Apiarist, Mr. Kuro, and his staff, but it is interesting and encouraging to note that it was requested by one of our allied industries.

Prince Edward Island - There are approximately 68 acres of apples using 65 colonies of bees, 60 acres of clover being pollinated by 40 colonies, 250 acres of cucumbers by 200 colonies. Very few colonies are being rented because larger beekeepers are always looking for apiary sites and farmers provide space for the use of the bees.

No other replies were received to our letter, but if we should receive replies at a later date we shall try to include them in the report for Council minutes.

Weather conditions made research work difficult in the Western Provinces. Drought, hail, excess moisture, insects, and generally adverse weather all in their turn worked to make results disappointing.

This committee co-operated with the editor of the Canadian Bee Journal in the preparation of a "pollination issue" in March of this year. The purpose of this issue was to acquaint beekeepers with recommended pollination procedures and to provide information which might be of value in their negotiations with growers. The chairman of this committee wishes to thank Mr. Tolton of the Canadian Bee Journal and also the Consultants who assisted in the preparation of this issue of the Journal. The chairman of the pollination committee also made two television appearances, several radio broadcasts and several reports to newspapers as well as a school broadcast. Most of this work was carried out in the interest of the Canadian Beekeepers' Council, but it also served to impress the writer with the knowledge that a tremendous amount of publicity can be obtained just because of the general interest value of bees. It would also appear that to take advantage of this opportunity it will be necessary for this committee to pay attention to public relations with the various channels of communication and the beekeepers who will make the appearances.

This committee also feels that whereas the Canadian Bee Journal could and should be an effective means of publicity and education in all fields including pollination, the Canadian Beekeepers' Council should therefore attempt to make the Canadian Bee Journal its official organ and at the same time display concern over the small circulation of the Journal. Efforts should be made by Council to increase circulation and provide the editor with a volume of timely and interesting material for publication

This committee will expect all council members and consultants to provide its chairman with all possible information on pollination. The committee is aware of the fact that pollination information was released to other important agricultural publications by members of Council other than this committee. We do not complain that the committee was by-passed but we do feel that we could have made further use of this information. We also wish to hear of all human interest and success stories which could be used to encourage others.

As was stated earlier in this report, it is very difficult for this committee to obtain accurate statistics on the number of colonies being used for pollination purposes and the amount of revenue obtained by beekeepers from this service to agriculture. The Dominion Bureau of Statistics have shown some interest in this aspect of beekeeping and it would therefore be suggested by this committee that Council attempt to have this information gathered by the Dominion Bureau of Statistics on their Preliminary Honey Survey Form.

PUBLICITY AND PUBLIC RELATIONS REPORT
BY J.P. Hodgson

APPENDIX IX

The members of the committee have been: P. Burke, D. McCutcheon and P. Hodgson, with much help from other members throughout the year, in preparing this report, for which I thank you.

As convenor of this committee it seemed to me that our first obligation was to SELL the Council to all Canadian beekeepers, and the best way to do this would be by having information put in the Canadian Bee Journal. It is being sent to more beekeepers than any other Canadian beekeeping publication.

Committee members as well as others contributed articles which would have been of more help if they had been read by more people.

To reach out farther some publicity was given in farm papers to interest prospective beekeepers as well as the present producers. These were prepared mostly by Provincial Apiarists. Articles for this type of publication should be prepared by some person whose name is well known as being an authority on the subject.

The main difficulty we found was to get our stories to all beekeepers. To get greater coverage than the Canadian Bee Journal could give we devised a circular telling very briefly some of the benefits that had been engineered by Council. Most firms dealing with and sending mail to beekeepers were written to and nearly all responded and promised to send out the circulars. Provincial Apiarists also distributed a lot.

However, it is obvious that these efforts are not enough to give Council the publicity needed to bring in more levy money and thereby enable them to do more effective work. So we must plan something very different for another year, and your committee suggests the following:

That the Council shall be responsible for a monthly publication that will be sent to all Canadian beekeepers.

It is believed that an editor can be found who can compile each issue from material that will be supplied by beekeepers who are familiar with Council activities, research work and other interesting matter. It will also distribute news items to tell one part of our country what other parts are doing.

It is hoped that the initial cost to Council will be only that of paper and printing. It will be shipped by express to the various provincial apiarists offices from where it will be mailed to beekeepers in that province.

As the number distributed will be about 10,000 it should not be difficult to get sufficient advertising, after an issue or two has gone out, to cover the entire cost of the publication.

I realize that this suggestion is very sketchy and many details must be worked out. Council has done and will do work that is essential to Canadian beekeeping. Its importance must be recognized by all and your committee suggests that this would be an effective way to make its importance known.

COMMITTEE TERMS OF REFERENCE

This committee should foster the Public Relations publicity efforts of Council

- (a) Committee should provide Council Members with information so that the work of Council can be properly publicized at Beekeepers' Annual Meetings and local meetings;
- (b) Committee should provide Council News Items to Provincial Apiarists, Honey Co-Op's and others who issue Newsletters.
- (c) Committee should submit monthly articles on Council activities to beekeeping publications;
- (d) The Committee should encourage publicity in newspapers, farm publications and on Radio and T.V.
- (e) Committee should attempt to instigate publicity on honey and related subject during the Annual Meetings.

REPORT OF RESEARCH COMMITTEE
by C.E. Meilicke

As a foreword to my research report, I would like to acquaint you with the terms of reference as set out in the 1958 Council minutes, and also to give you some idea of the work which we are doing:

(a) To ascertain from beekeepers the research projects most needed by them

"Questionnaires were sent to beekeepers asking what problem they would like to have research specialists work on. Several of these questionnaires were returned with suggestions as to problems. The information gathered from these cards will be presented in the recommendations and resolutions.

(b) To follow progress of current research and furnish results to beekeepers as available

This I have not done since I feel I cannot. I haven't proper facilities and also I feel it is the job of the extension worker. Perhaps my function here would be to encourage the proper distribution of such material to beekeepers.

(c) To encourage an integrated research program in Canada and to recommend changes or additions to Council

Council has encouraged a more integrated research program, and as a result there is more co-operation in research work being conducted in Canada.

(d) To see that beekeepers' needs are presented to the Government officials involved, at regular intervals

I feel that these needs can be presented at Council meetings which I propose to do.

I would like to recommend that the terms of reference be changed as follows:

(b) To attempt to follow progress of current research and encourage proper distribution of results to beekeepers as available.

This committee wishes to encourage the research work that is being carried out at the present time and would recommend that such work be continued and adequately supported. This work included:

- Investigation -
- (1) On the packing of honey, both liquid and granulated
 - (2) On new bee diseases as they appear
 - (3) On bee repellents for use with poison sprays
 - (4) On position of larvae in queen cell and how it affects development of larvae (May have use in swarm control)
 - (5) On Simplified wrapping or covering for packing bees for wintering at reasonable prices
 - (6) On inside wintering
 - (7) On mechanization of beekeeping

This committee recommends that:

- (1) Further work be carried out with regard to the removal of pollen from honey combs as was requested by the Manitoba Beekeepers' Association in 1958.
- (2) That research workers check into the information available regarding the statement that bees feeding on sugar syrup have only $\frac{1}{2}$ the life of bees feeding on honey.
- (3) That beekeepers respond to requests by research departments for specimens and information.
- (4) That Council request the manufacturers and packers of cyanogas to make such available in containers that would insure more safety to the user and that more effective methods of application be devised, that would be of benefit to the beekeeper.
- (5) That investigation be made as to the possibility of the use of a more suitable material other than cyanide for the destruction of bees.

APPENDIX XI

REPORT OF THE STOCK HONEY CONTAINER DESIGN COMMITTEE

The terms of reference of this committee is "To secure a smart stock honey design for Council to recommend to manufacturers!" With this thought in mind, a circular letter was sent out to thirty-three individuals interested in the packaging of honey asking the following questions regarding stock honey containers:

- (1) Are people satisfied with the present container
- (2) If you are not satisfied what changes do you suggest (In wording a design)
- (3) Have you a suggested design for Council's consideration
- (4) Have you any other suggestions to offer.

Twenty-one replies were received with almost as many different opinions expressed. I would here like to state that I feel there is considerable confusion when we use the words "Stock Container" lightly. Apparently from the answers received, there are a number of different companies putting out Stock Containers. These containers as we know them in the east, must be different in other parts of Canada, or vice versa. From answers received there must be many different colors. Some have referred to cans while others have referred to mono cups, etc.

I shall try to summarize briefly the opinions expressed by those replying to my circular, bringing out the points they have stressed.

British Columbia (Four replies)

1. Pointed out the difficulty of one province wanting one design while another would want their own. Saw no need for a change.
2. Vancouver Island - He had made a survey of producers on the Island. He stated that they used plain tins there and were satisfied with their present container. He did not feel there was need for a change.
3. He stated that stock honey containers made of tin were used very little in British Columbia, and that the few thousand sold each year would not be enough to influence a manufacturer. He stated that a local B.C. can company had tried to offer a design to B.C. Beekeepers made for their own use, but were not successful. He felt that B.C. producers would accept any container that is satisfactory to the rest of Canada.
4. Had a copy of the above reply and concurred in the views expressed by the preceding person.

Alberta (Two Replies)

- (1) Beekeepers were now buying the present stock container for want of something better. Present beekeepers feel that the present design is not eye appealing as compared to designs of competing products on the market. He suggested the elimination of the dark blue shading on the front entirely (and here again I say is a can we in the east are not familiar with) For this elimination, he would substitute four to six small pictures of what honey can be used for, e.g., on hot cakes, toast, fruit, in cooking, etc. A picture of a hive and bees might also be advisable. Writing on the back to be reduced to make way for engraved pictures. Another suggestion was to change the color scheme for brighter colors of orange and pink. A further suggestion was to use plastic containers providing price not prohibitive and also the use of glued designs.
- (2) Had talked with a number of the beekeepers. He feels that a number of them are still dissatisfied with present container. They however are not certain what the answer to the problem is. Perhaps a satisfactory stock design container would help, but they are of the opinion that it being a stock design even although a more attractive one, would not solve the problem they are faced with. He feels their own design is really what they want.

Saskatchewan (Four Replies)

- (1) Had sent out questionnaires to twenty three users of stock design honey containers. He had received answers from 10 individuals. Six who had answered stated they were not interested in a new standard container Three said that they were. Two had suggestions to offer as follows:
 - (a) That a new design be set up so that the Provincial name could be substituted for Canadian, e.g. Saskatchewan Honey - Alberta Honey, etc.;
 - (b) a brighter colored container be used, suggested brightness might be added by flowers since honey comes from flowers;
 - (c) it was suggested that the design be formulated to put across to the consumer the health value of honey.One person had sent in a couple of suggested designs.

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The suggestion was made to try to find out how many stock design containers are being used. This might indicate how important a new design would be. One other individual had suggested a red pail with a smart design would be preferred as far as he was concerned. He suggested a 30-lb. pail with straight walls like to 2 - 4 and 8 lb. can.

- (2) Present standard container not satisfactory, suggested modernization of design, wording was reasonably satisfactory. Felt it was worthless to include recipes on containers, they clutter up the design. Recommended getting away from the standard container in the Blue color. There were other color combinations more attractive. Thought container company artists were the ones to submit designs incorporating suggestions for council.
- (3) Beekeepers dissatisfied with present design, suggested more modern design with brighter color. Thought design should be changed once in awhile anyway. Felt that a new smart design would increase sales.
- (4) Had no complaint about present container. He suggested a new detail. Canada Packers use a 2-lb. container for peanut butter which has a rim around the top of the lid so that one can well-set inside the other. Felt this could be done with all size honey pails. Would be easier to pile on shelves and get more honey displayed.

Manitoba (One Reply)

- (1) Did not believe beekeepers satisfied with the present design. No suggested design to offer. Felt that even if he had was not sure can companies would accept it. Appeared that demand for metal containers was disappearing and therefore the need for a change was not so great. There was an obvious switch to plastic. Many of the large packers and some beekeepers have there own design and the need for a stock design container not too great at present. Suggested no action be taken unless some one comes up with a specially good idea. Was not against a change in container design but questioned the need of it.

Ontario (Four Replies)

- (1) Mentioned Pool of Ontario Honey Producers Coop was 6,000,000 lbs. and something would have to be done to move surplus. They had always used tin or pergo containers but will now put out a pack in 2-lb. plastic. Trend today towards plastic. Thought that if the design on plastic or tin was more eye appealing especially to children, this might influence the mother when buying.
- (2) He had heard no remarks or complaints against the present container. No one has any interest in marketing honey in standard containers, had suggested a new design. A few years ago the American Can Co. had made a few containers in a gold and yellow color with a somewhat different design than they had been using previously. Considerable study and work had gone into this container, but it did not prove too satisfactory. Suggested that if there is a clamor for a new design to turn it over to the Continental Can Company.

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- (3) Had heard criticism present stock design too plain. Questioned if producers would be willing to pay the added cost of dressing them up with more color. Felt more could be done with two colors by an imaginative designer than has been done in the past. If in the interests of cost a container must be plain, then the plainer the better providing it is bright and sharply marked. Finds the blue and the yellow of the two stock designs more than a little depressing. The blue can bilingual carried too much printed matter. Suggested wording be held to a minimum and that any legends on side or rear panels be short and to the point. He wondered if a plain gold lacquered can such as used for jam, but with a honey lid had ever been considered, with a white or light colored label lithographed thereon carrying the word "Honey" and providing space for the packer's name, address, grade and remarks. Net weight declaration could be carried on a side panel in a circle or otherwise. On a light background all markings could be printed in any color. Ample and well defined space should be provided on the main panel for the stamping of class and grade marks and packers name and address. The packer's name and address can be carried elsewhere but it has always appeared there and he believed that is where beekeepers want it.
- (4) He was not satisfied with present design. Have had it for a long time suggested a change in coloring with the same lettering. Suggested a bright red or yellow in place of the white. Would submit suggested changes to Continental Can Company.

Quebec (Two Replies)

- (1) Believed people were satisfied with present design, saw no need for a change.
- (2) Submitted the questionnaire to the Quebec Association - no replies received.

Prince Edward Island (One Reply)

- (1) Had no complaints on present container. Some storekeepers thought the red container more popular with the public. Raised question of cost of case container for one pound tubs was too high. They paid 55¢ with no printing. Would say it certainly was. Our cost 25¢ for case with 1 pad and 2 pads perforated for the tubs with printing.

New Brunswick (One Reply)

- (1) Felt that design on container was an individual affair. He felt that the heart of the design was the Brand name. This heart was lacking in the stock design. He could not think anything effective to put in its place. Suggested that the problem be given to the can companies and ask for their suggestions for improvement. Each company could submit designs and council select the best. When design accepted all container companies should adhere to the same design.

Nov Scotia (Two Replies)

- (1) Some dissatisfaction with present designs. One pound mono design well received and basic design has met with general approval. Same applies

to the 2-lb. tub except that it is rather tall and flimsy. Criticism voiced suggests use of brighter colors. Base color pure white. If one color to be used for the vignett and floral design, it preferably should be a bright red or accombination of red and green if two colors to be used. Beekeepers suggest the same design on the cans as used on the mono tubs with color changes as above.

- (2)
 - (a) Tub basic design is good
 - (b) It has consumer acceptance through long familiarity
 - (c) It however lacks color and does not demand attention on shelves with modern designs
 - (d) Retain the design, but alter the color scheme as follows -
 - (i) convert to whiter type containers; (ii) panel with Pure Canadian Honey on lid and sides of tub and net weight 1-lb. to be in bright red with white lettering; (iii) clover design (both sides and lid) in fairly strong blue or green
 - (e) Same design could be applied to the 2, 4 and 8 lb. cans with the decided advantage that the panel in French would have equal prominence with English.
 - (f) Delete all unnecessary small print.

Generally speaking, it seemed that those who wanted a change stressed first a brighter color, a simple but sharply marked design. Unnecessary printing to be deleted. Uniformity amongst the various containers companies. Those who did not want a change, stressed if there was sufficient stock design used to warrant it. Some felt that it was not a stock design producers were needing, but their own personal design.

The Continental Can Company, through Mr. King their Nova Scotia representative for the paper division, was contacted. They have submitted a dummy sample tub container of new design. It has been prepared on the new one pound squat container and although a dummy will give some indication of final appearance. Personally, it does not appeal to me. It might be okay if it had the brighter color that was referred to so often. They also enclosed a few lithographed lids. The Continental Can Company point out that whenever a stock design item is changed in design or color, considerable planning and work is involved. The Sales Department has to consider inventories both in their plant and distributors warehouses. The cost of art work and new plates for printing is also a factor. They suggest that if they are to consider our proposals we should briefly outline the suggestions of the Beekeepers Council. We should give reasons why the present designs on both paper and metal should be changed. They stated their appreciation for the business of the Canadian Beekeepers and were open minded to new ideas that would benefit both the supplier and producer and have assured us of their cooperation.

Mr. Chairman, an honest attempt has been made to try to find out what the Canadian Beekeeper wants by way of standard containers. This report has been lengthy but I knew of no other way of presenting it other than by briefly outlining the viewpoints I have received. I hope that the discussion will be such so that some definite decisions can be reached. I am sorry I was unable to bring in definite recommendations for a new design of containers in paper, metal or plastic.

Respectfully submitted, M.S.Horsburgh

PACKAGE BEE & QUEEN CLEARANCE COMMITTEE

By E.J. Burnett

There have been no major problems with regard to the clearance of package bees and queens during the past year, these are coming through as trouble free as we can expect.

During the past year the Canadian Beekeepers have been faced with the discriminatory 15% express rate which applies only to bees coming into Canada. While Council made repeated requests to have this 15% removed, it had no success. Just recently the American express rates were increased 15%, but this increase does not affect the Canadian package bees. Thus I feel that through Council effort this last increase was avoided and that now there is no discrimination.

(The following recommendation was discussed at length, and it was decided that no action should be taken.)

This committee would like to make one recommendation to Council, that is

That Council set up a progress report as to the weather and bees in the package bee areas.

We could have a post card prepared and distributed either to the different state apiarist or some of the package bee shippers in the package states. On this card such questions as:

1. Has weather conditions in the past two weeks been: Good.....Fair....
Below normal.....
2. Are your hives building up for packages bees: Good.....Fair.....
Slowly.....
3. Is your supply of queens good: Yes.....No.....
4. Do you expect to ship packages: Ahead of time..... On time.....
Some delay.....

These cards could be returned every two weeks starting March 1st to May 1st. These would be sent to a central office and from there this information could be given to every Provincial Apiarist, also to papers or bee magazines.

COMMITTEE TERMS OF REFERENCE

1. CANADIAN NATIONAL, ROYAL WINTER FAIR AND GENEVA EXHIBITIONS

To supervise the designing, erecting and management of Council displays or exhibits authorized at the Canadian National Exhibition, Royal Winter Fair, and other national shows;

To encourage honey competitions and exhibitions at all levels;

To publicise all honey competitions open to Canadian beekeepers and encourage participation in them;

To encourage uniform judging and entry requirements;

To report to Council, information concerning honey competitions and exhibitions held during the year in Canada.
2. STATISTICS

To gather and present for publication, all statistics on the importation, exportation and production of honey, and such other statistics as may be useful to Council or beekeepers generally.
3. GRADING
 - (a) To survey the working of the Dominion and Provincial Honey Grading regulations and to report the findings to Council.
 - (b) To prepare and recommend to Council, changes to such regulations as required.
4. HONEY USES
 - (a) To investigate or promote the investigation of new uses for honey - new forms in which honey may be marketed.
 - (b) To recommend desirable experimental work to Council.
5. POLLINATION
 - (a) To gather statistical evidence of the value of bees as pollinators and publish same for the information of beekeepers.
 - (b) To prepare and distribute recommendations re fees.
 - (c) To acquaint beekeepers with their responsibility to farmers when pollination fees are accepted.
 - (d) To publicize the value of bees as pollinators through Farm Papers working in co-operation with our Publicity Committee.
 - (e) To ascertain results of pollination activities and prepare a report for Council.
6. PUBLICITY & PUBLIC RELATIONS (See APPENDIX IX)
7. RESEARCH
 - (a) To ascertain from beekeepers the research projects most needed by them.
 - (b) To follow progress of current research and encourage proper distribution of results to beekeepers as available.

7. RESEARCH (cont'd)

- (c) To encourage an integrated research program in Canada and to recommend changes or additions to Council.
- (d) To see that beekeepers' needs are presented to the Government officials involved, at regular intervals.

8. STOCK HONEY CONTAINER DESIGN

To secure a smart stock honey container design that Council may recommend to manufacturers.

9. PACKAGE BEE & QUEEN CLEARANCE

To keep contact with the clearance of bees and queens through Customs and to make recommendations from time to time, to facilitate this movement.

RESEARCH REPORT
TO THE CANADIAN BEEKEEPERS' COUNCIL
MANAGEMENT

WINTERING

Controlled Winter Storage - O.A.C., Guelph

A repeat experiment was conducted in which 60 nuclei were wintered in an outside building which was temperature controlled (40 to 45°F.) to prevent the nuclei being subjected to extreme temperatures. This time the outside entrances to the nuclei were provided with wooden baffles, and were painted different colours in an attempt to cut down on drifting. Even so, drifting and dwindling was severe, especially in the early spring. A high incidence of Nosema (as high as 60 per cent of examined bees infected) may have been partly to blame for the dwindling of nuclei. Only about 20 nuclei survived the winter and this test was not considered practical.

At the present time a special building is under construction to enable nuclei and colonies to be wintered under simulated cellar conditions. Bees will be wintered in the dark, in a well insulated temperature-controlled environment. An air conditioner will prevent the temperature from rising on warm days to the point where the bees become active. This unit will be ready for testing this winter with about 120 nuclei and single story colonies.

Insulating Materials - Brandon - Dr. J.C.M. L'Arrivee

Insulating materials commonly used in house construction such as fiberglass, balsam wool and rock wool have also been used to protect the bee colonies. The Experimental Farm, Brandon, has evaluated a number of these home insulation materials for outside over-wintering bee colonies. The results obtained indicated that fiberglass and tar-paper packs with wood shavings are the best and of equal value, whereas balsam wool ranked third and ten test ranked last. Fiberglass bats also last longer than balsam wool.

During the winter 1959-60 a new project was initiated in which insulating materials are to be evaluated. These include various densities of fiberglass, asphalt and vinyl coated fiberglass, Spintex, Foamglass, Cell-U-Form, various Styrofoams, Armatemp, Buffalo board, corrugated paper, corkboard and Armaflex. A number of these materials were unsuitable per se and these were either coated or covered with polyethylene plastic sheets. A report on the suitability and performance of these materials may be expected at a later date.

SWARM CONTROL

Beaverlodge - P. Pankiw

Queens were confined at the beginning of the main nectar flow as a possible aid in swarm control. Colonies with queens confined in 1-, 2- and 3-frame cages did not differ in honey production from control colonies. However, when the queens were confined in small 8 x 8 mesh screen cages, the colonies produced 24 pounds less honey, which amount was statistically significant.

Caging versus Removal of Queens and Package Colonies - Ottawa - Dr. R. Boch

Caging the queen in package colonies three weeks before the end of the honey flow was slightly advantageous over removal of the queen for the same period. The average honey yield of colonies where the queen was caged was 4-1/2 lb. higher than in dequeened colonies.

HONEY HOUSE EQUIPMENT

New Settling Tank Tested - Ottawa - G.H. Austin

A jacketed settling tank heated by hot water (135°F.) was developed and tested on extracted honey. The honey was pumped from a sump through a 1-1/2-inch pipe bound with a soil cable into the tank and flowed by gravity over a series of 12 baffles. The temperature of honey increased from about 90°F. to 120°F. during the process.

Honey which had been uncapped with a plane was as clean after passing through the tank as that which had been settled in an ordinary tank for 48 hours. Honey which had been uncapped with a Bogenschutz uncapper retained some of the finer wax particles but was considerably improved.

It is planned to continue tests with a modified form of this tank since the principle upon which the process is based shows considerable promise.

Brandon - Dr. J.C.M. L'Arrivee

Complete re-organization and modernization of honey extracting and processing equipment is now in progress at the Experimental Farm, Brandon. Recent purchases include a package unit pressure gravel strainer and pasteurizer, a cappings whirldry, a Root 45-frame Simplicity extractor with automatic power drive, and a Brand capping melter.

This modernization has been extended to other phases of beekeeping activities at this bee research centre. A fully automatic air conditioner has been installed for cellar wintering of bee colonies. A Spencer cycloptic stereomicroscope and Laidlaw artificial insemination apparatus were obtained for instrumental insemination of queen bees. Numerous other pieces of equipment have been obtained to facilitate the greater scientific emphasis that bee research requires.

REMOVAL OF QUEENS - Brandon - Dr. J.C.M. L'Arrivee

The effect of queen removal at 3 and 6 weeks prior to killing the colony was studied in 1951 to 1957 inclusive.

It appears that no benefits may be derived from dequeening before the end of the season. Not only does this management practice result in lower honey yields during the period prior to killing the bees, but it also causes brood combs to become pollen-bound. This latter feature may be objectionable in some areas of beekeeping.

QUEEN BREEDING

Virgin Queens for Beekeepers - O.A.C., Guelph - Dr. M.V. Smith

This year for the first time virgin queens reared at Guelph were made available to beekeepers, more or less on an experimental basis. A total of 535 virgins were shipped out. Many beekeepers reported good success with introduction and mating of these virgins. While the mating of hybrid virgins in his own bee yard does not assure controlled mating to selected drone lines, it is hoped that the use of selected females will tend to improve the beekeeper's stock. Further observations will be required on colony production to assess the value of this method of stock improvement.

Hybrid Stock Testing - O.A.C., Guelph - Dr. M.V. Smith

Mr. and Mrs. Erik Seidler again operated the Queen Mating Station on Pelee Island. As in the past two years, grafting and rearing were done at Guelph. Four hybrid lines were used, and 1,307 virgin queens were shipped to Pelee. Beekeepers received 304 mated queens, while 461 queens were used for test purposes.

The testing of hybrid stock has been discussed and more emphasis will be placed in future on the observation and recording of individual characteristics - such as pollen gathering, stinging tendency, longevity, foraging behaviour, honey stomach capacity, etc. - rather than on honey production as a basis of comparison.

Stock Testing - Brandon - Dr. J.C.M. L'ArriveeAverage Honey Yields for Different Strains

<u>Years</u>	<u>ZS Hybrid</u>	<u>ZX Hybrid</u>	<u>Commercial</u>
1957	192 lbs.	201 lbs.	210 lbs.
1958	87 lbs.	89 lbs.	91 lbs.
1959	<u>130 lbs.</u>	<u>115 lbs.</u>	<u>127nlbs.</u>
Total of Averages	409 lbs.	405 lbs.	428 lbs.

These results do not appear encouraging in view that greater yields potentials were expected from the hybrid stocks. No important differences were observed among the various strains tested with regard to uniformity of yield, bee behaviour, temperament and disease response.

Ottawa - Dr. R. Boch

Testing of hybrid stock was continued at Ottawa during the summer 1959. On a honey-yield basis, 2 hybrid lines, ZX and ZS, obtained from the Ontario Agricultural College were compared with commercial stock obtained from a breeder in the United States of America. Twenty (20) colonies each of ZS and ZX strain produced an average of 158 and 159 pounds respectively. The average honey yield of 20 commercial strain colonies was 173 pounds. The difference between these averages was not statistically significant.

Charlottetown - W.A. Burns

We wintered 51 colonies in this project, 27 of the commercial strain and 24 of the hybrid. On May 13, 1959, in the commercial strain, we classed them as follows: 6 good, 3 fair, 9 weak, and 9 dead. The hybrid strain were classes as: 15 good, 4 fair, 3 weak, 2 dead. In the commercial group, we gave 5 colonies 2 lb. of bees, without these they would have died. One colony in they hybrid group was also given 2 lb. of bees. Dwindling was still severe during May and early June and all colonies were given a set-back about June 18 due to poisons from an unknown source.

We would see no difference in the colonies during the summer. One outstanding point was that the hybrids came through in stronger condition.

Yields were obtained from:

14 hybrid colonies of 864 lb.
15 com. " " 1178 lb.

On the basis of these results, it would appear that the hybrid strain for wintering and spring build-up were superior to the commercial strain.

New Brunswick - A.J. Wilson

Several different strains of hybrid queens were tested. What prompted this was the Provincial Apiarists' meeting at Guelph. Since then I have requeened 40 colonies with 4 different strains, 10 each of Starlines, Midnights and Pelee Island and other stock.

The Starlines had their hives filled with excess brood and a bushel of bees and no honey in a double brood chamber in the fall; wanted to supersede or become drone layers too often during the season.

The midnights had a lot of poor traits from being vicious to having no ambition at all.

Pelee Island queens were very large and capable; brood pattern very compact; not given to building swarm or supersedure cells; stopped brood rearing earlier; and had the most honey in brood chambers for winter.

Other stock which were advertised as pure strains were a mixture of everything; wanted to swarm early and late in the season.

There was not much difference in the amount of honey on any of the hives except the Islanders and they had the extra in the brood chamber and needed very little feeding.

BEE BEHAVIOUR STUDIES

O.A.C., Guelph - Dr. J.B. Free

Dr. J.B. Free, who spent a year at Guelph on a Postdoctorate Fellowship, carried out some foraging behaviour studies on fruit and legume crops. He moved one group of colonies to the crop before it had come into bloom, then at the peak of bloom he moved in a second group. The bees from each group of colonies were marked so they could be identified in the field and collections of foraging bees were made on the blossoms, along with observations at the hive entrances on flight activity. In the various tests conducted, from 2 to 12 times as many bees were recorded from the recently moved hives.

Ottawa - Dr. B. Furgala

Preferential Foraging Responses of Honeybees to Various Concentrations of Sucrose Solutions

Series of paired feeding stations containing sucrose solutions differing in concentration were offered the foraging populations of caged honeybee colonies. The difference in concentration necessary to induce preferential foraging appeared to increase with increased concentration.

Preferential Foraging Responses of Honeybees to Certain Sugars

Solutions of the principal nectar sugars equal in concentration (by weight), were offered to honeybees singly and mixed in specially constructed feeding compartments. The honeybees exhibited definite preferences in the preliminary investigations. To date, attempts to modify these responses by prefatory conditioning to specific sugars or sugar mixtures have been unsuccessful.

The Distribution of Nurse Bees in the Brood Nest

Preliminary studies were undertaken to determine whether there was a relationship between age of nurse bees and the age of worker larvae being tended. Large numbers of newly emerged bees were marked at two-day intervals and introduced into an experimental colony. In order that larvae of all ages be present and recognizable, brood combs containing only newly emerged larvae were also marked each day and placed in the colony. Daily, the individual larval combs were examined. The number of nurse bees in each age class on each brood comb was tabulated. No detectable association between any age class of the respective groups was apparent.

Provisioning Behaviour of Individual Nurse Bees

Preliminary observations on the behaviour of individual nurse bees in the act of provisioning worker larvae (1-5 days of age) indicated that the former oriented in a characteristic manner in order that the proboscises be directed towards the mouths of the recipient larvae.

Ottawa - Dr. R. Boch

Preferential Responses of Honeybees to Various Concentrations of Sucrose Solutions

Preliminary studies were undertaken to reveal how the sugar concentration of the nectar influences the bee to visit a certain crop. On artificial feeding places near the hive, differently concentrated sucrose solutions were offered to individual-marked foraging bees. There were measurable preferences of the bees up to a certain least concentration interval where no differences in the response of the bees were detectable.

Additional information was obtained by measuring the quantity of sugar solution taken by a bee at one feeding. The crop load appeared to be correlated to the concentration of the sucrose solution. Duration of feeding and dancing activity of the bees also seemed to be related to the sweetness of the feeding solution.

Mating Flights of Drones and Queens

Attempts were made to correlate meteorological events with daily flight period of drones and queens. The insects were marked with radioactive paints and their flight frequency recorded automatically through a Geiger tube placed in the entrance of the hive. However, heavy construction work going on at the Experimental Farm interfered with the highly sensitive apparatus to such an extent that the experiment had to be terminated shortly after commencement.

Brandon - Dr. J.C.M. L'Arrivee

Pollen-collecting behaviour of bee colonies was studied in 1957, 1958 and 1959 at the Experimental Farm, Brandon. Eight colonies were observed in 1957 and 10 colonies were studied in 1958. In 1959, 4 replicated samples of 8 parent colonies were observed for this behaviour. Results obtained indicate that great variability exists among the different races and sources of honeybees. In all three years, the Caucasian race of bees collected the most pollen followed by the Carniolan race. Different sources of Italian bees showed considerable variability for this behavioural trait. It therefore appears that races and strains of honeybees are inherently disposed to gather a large surplus of pollen whereas other colonies apparently collect very little more than immediate colony requirements.

POLLINATION

Brandon - Dr. J.C.M. L'Arrivee

In the past studies in pollination conducted at the Experimental Farm, Brandon, dealt with activities of honeybees on alfalfa, rapeseed and sunflowers. Much useful information has been obtained on these crops and their pollination.

In 1957, a major project was initiated for investigating the possibility of breeding honeybees for more effective pollination. A strain of bees having superior pollen-collecting behaviour seems very desirable because modern agricultural practices and wide use of powerful insecticides have reduced the wild bee population. Studies carried out in 1957, 1958 and 1959, dealt with techniques for measuring pollen collection of bee colonies. Results obtained indicate that measurements of the amount of pollen stored in the broodnest is a more reliable criterion than Counts of Pollen Carriers at colony entrances. Pollen traps were not used in this study because they adversely affect colony development and behaviour. The Stored Pollen Measurement method for evaluating pollen-gathering inclinations of bee colonies will be used as the criterion for breeding strains of honeybees having superior and inferior pollen-collecting behaviour.

Blueberry Pollination - Nova Scotia - E.A. Karmo

The results demonstrate that the blueberry is dependent on insect visits for a fruit set. Honeybees will effect high fruit sets. Some clones show relatively high selfing ability, and again some crosses show a high degree of sterility - which makes it imperative to have a good insect population so as to get crossings from several different clones.

Pollination of Pickling Cucumbers - Charlottetown - W.A. Burns

Triplicate plots 12' x 6' were used.

	<u>No.Fruit</u>	<u>Weight</u>
Cucumbers caged with bees	203	4.59 lb.
Cucumbers caged no bees	23	1.07 lb.
Check	223	5.98 lb.

The yield from the check plot was somewhat higher, than the plot caged with bees. The yield of the caged plot without bees was practically of no value. These results are in line with our previous work.

Low Bush Blueberry Pollination - Charlottetown - W.A. Burns

An experiment was carried on in Charlotte County, N.B., during the past spring to determine the value of honeybees as pollinators of low-bush blueberry. Percentage fruit set was determined in 5 fields which had honeybees employed at the rate of approximately one colony per acre, and in 5 fields which did not have the service of honeybees. Each colony contained a 4-pound package of bees imported shortly before the blossoming period of blueberry. In those fields without honeybees the sets ranged from 19.2 to 30.4 per cent, while fields with honeybees had sets ranging from 45.6 to 60.8 per cent.

Preference of Honeybees for Legume Seed Crops - Beaverlodge - P. Pankiw

Based on honeybee counts per unit area white and yellow blossom sweet clover were the most attractive followed by alfalfa and the two species of alsike, viz., tetraploid and common. Red clover was the least visited, with preference being given to Altaswede over LaSalle. On the basis of flower count, the difference in preference between the sweet clover, alfalfa and alsike clover is reduced. The yields of seed of the open pollinated versus non-pollinated areas were as follows: Alfalfa 71:12, common alsike 268:31, tetraploid alsike 331:18, Altaswede 344:27, LaSalle 226:23; white sweet clover 701:221, yellow sweet clover 570:23.

NECTAR SECRETION

O.A.C., Guelph - Dr. R.W. Shuel

Experiments on the effect of calcium and magnesium on nectar production have been completed, but the results are not yet analyzed.

In 1960 field trials will be made on the basis of all nutrition studies to date in the greenhouse.

STOCK IMPORTATION TESTS

O.A.C., Guelph - Dr. M.V. Smith

This summer an effort was made to determine whether immature stages of the honeybee could be successfully transported for the purpose of introducing new breeding stock. Since only adult bees are susceptible to Acarine infection, this would eliminate the danger of introducing this disease.

With the co-operation of Dr. C.L. Farrar, Madison, Wisconsin, Dr. E.J. DuPraw, University of Florida, Gainesville, Florida (who spent the summer in Austria), and Dr. J.C.M. L'Arrivee, Brandon, Manitoba, a number of shipping tests were carried out, including eggs, larvae and pupae.

As a result of the tests it is felt that shipment of immature stages could offer a safe alternative for the importation of new stock. At present a portable incubator-shipping case is under construction to try to make this method more reliable.

DISEASE

Brandon - Dr. J.C.M. L'Arrivee

Due to the advent of Sulpha drugs and Terramycin, American Foulbrood is no longer a problem in this country. Therefore, present research with

Bacillus larvae, causal organism of American Foulbrood, is of a classical nature. The prime objective of the present program is the determination of dosage/mortality response free of environmental factors. A secondary object is the determination of the presence (or absence) of a B. larvae exoenzyme and to assess its importance, if present, on or in the young bee larvae. Preliminary work was done in 1956 but the 1957, 1958 and 1959 seasons were not favourable for field and cage studies. During the winter 1959-60, investigations will be carried out in a greenhouse where most environmental factors can be controlled.

Ottawa - Dr. B. Furgala and Miss M.J. Maunder

Inoculation of Queens with Nosema Spores

During the past summer many queens were individually inoculated with various numbers of Nosema spores (8,000 to 85,000). Queens inoculated with the highest concentration of spores were invariably superseded within two weeks. In certain tests all queens were superseded within one month regardless of level of infection.

Eggs laid by infected queens were examined for Nosema spores. Although spores were occasionally observed on the surface of eggs, the possibility of foreign contamination could not be ruled out.

Preliminary Studies on the Pathological Development of Nosema in the Worker Honeybee

A suspension of Nosema spores was fed to caged honeybees. Following the feeding period 3 bees were removed daily for a period of 15 days and the ventriculi prepared for histological examination. Spores were not observed in the epithelial cells before the sixth day after the completion of the feeding period. The degree of infection increased with time.

Ottawa - Dr. R. Boch

Nosema

Summary of package queen mortality survey.

Queens submitted during period April to July 1959

	No. of Queens Received	Infected with Nosema	Per cent Infection
Queens dead in shipping cages	79	31	39
Queens superseded	5	3	60

Toxicity of "FUMIDIL-B" in Field Trials

For control of Nosema disease, the usual recommendation per colony is 100 milligrams of active fumagillin admixed to sugar syrup.

In field trials it was found that half the recommended dosage of fumagillin is sufficient to control Nosema disease in package colonies. Feeding fumagillin at a higher dosage level than recommended adversely affects brood production of the colony.

European Foulbrood Control - Beaverlodge - P. Pankiw

Preventive feeding of 200, 100 and 50 milligrams active antibiotic doses of Terramycin Animal formula 25 and Terramix-10-D at 3 weeks after hiving indicated that only the 200 milligram (recommended) was completely effective for a 3-week period. The 100 and 50-milligram feedings were ineffective with the infection present in as high as 28 per cent of the colonies. The Animal Formula was taken up more readily than the Terramix 10.

Feeding of 250 milligrams (70 ppm. in sugar syrup) of the antibiotic formulations TAF 25, TPF 25, TM 10, TM 5, Vet-strep, Gallymycin and Polyotic to 2-pound package bee colonies at 1 and 3 weeks after hiving was not toxic either to the bees or brood of the treated colonies.

LABORATORY REARING OF HONEYBEE LARVAE

O.A.C., Guelph, Dr. M.V. Smith

Larval rearing tests with various food additives and modifications are being continued in an effort to gain further knowledge of larval nutrition and differentiation.

ROYAL JELLY

Anti-tumour Effect of Royal Jelly - O.A.C., Guelph - G.F. Townsend

A long-term study on the chemistry and biological activity of royal jelly from bees is being carried out at the Department of Apiculture of the Ontario Agricultural College. Recently, the possible anti-leukemic and anti-tumour properties of this material in experimental mice have been investigated as a collaborative project between the Department of Apiculture of the Ontario Agricultural College, the Laboratory of Hygiene of the Department of National Health and Welfare, and the Department of Therapeutics of the University of Toronto.

Initial experiments showed that admixture of royal jelly with tumour cells before inoculation completely suppressed the development of a transplantable mouse leukemia and the formation of ascitic tumours in mice. By fractionation studies it was found that the anti-tumour activity resided almost entirely in the fatty acid fraction of royal jelly and that acid conditions were necessary to demonstrate the activity. The active compound 10-hydroxydecanoic acid, has been isolated in quantity and studied in detail. A number of dicarboxylic fatty acids have been investigated and found to have anti-leukemic and anti-tumour activity in the mouse protection tests. Chemical derivatives of these compounds, particularly methyl esters, are being tested for possible activity under conditions of neutrality.

The protective effect was obtained only when the active material was mixed with the leukemic or ascitic tumour cells prior to administration. Attempts to demonstrate protection after tumour implantation or by separate administration of royal jelly and leukemic cells have as yet been unsuccessful. Royal Jelly and the compounds exhibiting protection were relatively non-toxic to mice.

Physiology - O.A.C., Guelph - Dr. R.W. Shuel

Measurements were made of oxygen uptake and carbon dioxide evolution during the first 24 hours of life by larvae on royal jelly and worker food. The pattern and magnitude of oxygen uptake was similar on all foods. However, it is interesting to note that the net carbon dioxide evolution by larvae on royal jelly or 3-day-old worker food was highly positive, while the net carbon dioxide evolution by larvae on 1-day worker food was slightly negative. Microchemical assays run along with this work showed that there was a difference between royal jelly and the 1-day-old worker food or the 3-day-old worker food. The composition of royal jelly remained relatively constant with age.

In order to determine whether the protein content of royal jelly and worker food differed to any extent, samples were put through a continuous electrophoresis unit, whereby chromatograms could be prepared and samples also collected of the various proteins which migrated to either the cathode or anode.

There were 5 distinct bands in royal jelly at 2 days of age.

Worker food of the same age shows exactly the same pattern.

The pattern for worker food of 5 days of age leaves out 2 of the bands, but when the concentration of this material was increased these 2 bands showed up quite distinctly, indicating a dilution only, mainly by the addition of sugars.

Particular attention has been paid to the acid fractions from the royal jelly, and where the jelly is used for experimental purposes, either biologically or clinically, it is frozen as soon as possible after collecting and lyophilized as rapidly as the equipment can handle it. For special purposes, very freshly secreted royal jelly is collected and immediately frozen and stored under nitrogen.

HONEY

Ottawa - G.H. Austin

Development of Hydroxymethyl Furfural in Heated Honey

As a result of heating part of the levulose and glucose in honey break down to form hydroxymethyl furfural (HMF). This material appears during storage and is a precursor to the development of colour in honey.

In a period of 20 weeks honey which had been heat treated by batch and by flash methods and stored at room temperature increased in HMF from an original 0.9 ppm. to approximately 40 ppm. and in Pfund readings from 22 mm. to 40 mm. Thus the original white had darkened to golden. Honey from the same treatments but stored after treatment at 57°F. developed HMF and colour more slowly (20 ppm. HMF, 30 mm. Pfund) and still classified white.

The HMF was determined on samples which were read in a recording spectrophotometer.

Honey Analyses

Samples of honey submitted by one of the honey co-operatives were analyzed by the carbon column method. This honey had been packed as liquid and showed a marked tendency to granulate.

Typical samples showed D/W ratios of 2.6, 2.43 and 2.22 which means that all samples were highly supersaturated with respect to dextrose. Analyses of the pollen spectra of these honeys showed a large preponderance of rape.

This points up our recommendation that honey which is derived largely or in part from rape should never be packed as liquid honey. It would be a real service if beekeepers would indicate in shipping to packers that their honey was produced in rape-producing areas.

Ottawa - Dr. B. Furgala and Miss M.J. Maunder

Sampling Bulk Honey

Honey samples were collected from 70 pound containers which were ready for shipment. Three sampling methods were compared: surface dip without skimming, surface dip with skimming and deep probe. Although there were no apparent differences in moisture and colour readings, the deep probe method provided the best estimate of insoluble impurities. Should honey packers begin to seriously consider contamination as a primary criterion in honey grading, methods of sampling will have to be carefully investigated.