



NEWSLETTER  
Number 4 - May 1984

EDITORIAL

With this issue of the Newsletter, the editorial duties have been assumed by Paul Sanborn and Mike Curran, both graduate students in the UBC Soil Science Dept. The new editors wish to thank Lawrence Lowe for his advice and assistance in preparing this issue. We also want to thank all of the contributors for their prompt responses to our request for materials.

For future issues, we welcome any contributions from members, including reports on current activities, new books and periodicals, and upcoming meetings. The next issue is tentatively scheduled for early September (after the CSSS meetings) and will include a list of recent changes to the membership list. So, please keep the Secretary advised of address changes.

PRESIDENT'S REPORT AT THE ANNUAL MEETING OF  
THE PACIFIC REGIONAL SOCIETY OF SOIL SCIENCE

February 16, 1984

It is an honour to present this, the first President's Report to the Pacific Regional Society of Soil Science.

Briefly, as background, recall that the Society was registered under the Societies Act of British Columbia, February 10, 1983 and that at a short meeting held at Harrison Hot Springs, February 17, 1983, the founding Directors reported that Lawrence Lowe and I had been asked to serve as Secretary-Treasurer and President, respectively, for 1983. Since that time the Directors have held six meetings; the other Directors being Les Lavkulich, Art Bomke and Tim Ballard.

Special consideration has been given by the Directors to the organization and objectives of the Society as outlined in its Constitution which was distributed to members with the second newsletter. It was agreed that emphasis should be given to participation, consultation and personal exchanges by members. With this in mind, it was decided to give high priority to the preparation and distribution of a Newsletter. Lawrence Lowe was asked to assume responsibility for this activity and he has prepared and distributed to members, three excellent and popular letters. Participation in and response to these have been very good and continued input and comment from members is welcome and expected. Thanks are due to Lawrence Lowe and the other contributors for this important activity.

The Directors also agreed that consideration should be given to the development of activities on projects that would involve members in the varied physiographic areas of the Region. To facilitate this, it was suggested that members be asked to consider the desirability of developing local units of the Society or assigning special responsibilities with the Directors.

Activities and projects suggested for consideration by the members included:

1. Preparation of a position paper on a Land Use Policy for B.C.
2. Preparation of a compendium, by region, on the Soils of B.C.
3. Development of a Superior Collection of Monoliths of B.C. Soils with appropriate Soil Museum housing.
4. Preparation of a compendium on soil variability in B.C.

With regard to student participation, it should be noted that it was agreed that we should explore with them the desirability and possibility of forming a Student Chapter of the Society at U.B.C. With this in mind, Les Lavkulich and I met with U.B.C. graduate students Mike Curran and Paul Sanborn and discussed this matter. (Ed.'s note: A report on the activities of the Student Chapter follows later in this issue of the Newsletter.)

In conclusion, I would wish to say that I believe the Society is off to an excellent start. In this regard, the Secretary-Treasurer reports that we have 105 Charter members and a total membership of 129, which is still growing. In addition to the items noted above, many others were accomplished during the year. In particular, I wish to acknowledge that without the full cooperation and support of the Department of Soil Science at U.B.C., and Les Lavkulich in particular, the year's accomplishments would not have been possible.

C.A. Rowles, President, PRSSS

#### ANNUAL GENERAL MEETING

The Annual General Meeting (AGM) was held in the MacMillan Building at U.B.C. in the evening of the day of the Land Resource Science Lead Committee's Soil Science Workshop. The outcome was a day of outstanding sessions followed later by our evening meeting with an important social content, a wine and cheese party. Our thanks and appreciation are directed to Tim Ballard, Norm Sprout, Ron Bertrand, Herb Luttmerding, Andy Black and the others responsible for the day's activities, and to Art Bomke and the students for the wine and cheese party. The meeting followed smoothly, the Treasurer's Report was approved, and (with no new nominations from the floor) the Nominating Committee recommendations were also approved. The officers listed below have then been duly elected:

Past President	Charles Rowles
President	Tim Ballard
Vice-President	Lawrence Lowe
Secretary	Terry Lord
Treasurer	Carol Jones

Future directions and activities of the Society were discussed, including relationships to other soil-related groups and the desirability of collaborating with such groups as appropriate. Interests of the Student Chapter were outlined and an annual report at the AGM was agreed upon.

Newsletter content and frequency were discussed briefly; three or four issues per year (one with current membership list) in the present format appeared to have general approval. Possible Society projects were discussed, including the possibility of regional groups accepting responsibility for appropriate projects. It was suggested and widely supported that members in various regions consider putting on field trips for secondary school teachers.

The President reported on the valuable legal assistance provided to the Society by Ed Norman, and presented Ed with a Certificate as an Honorary Member of the Society, as elected by the Directors. Dr. D.G. Laird and Dr. J.A.F. Gardner had also been elected as Honorary Members. With all business done, the wine and cheese party resumed.

Following some earlier discussions with Drs. Rowles, Lowe, and Lavkulich, an informal student chapter of the Society commenced activities in January. A founding meeting was held on January 26 at U.B.C. with about twenty students present. The proposed activities that seemed to be most popular were invited speakers from outside this university and informal field trips during the summer and fall. Acting on these suggestions, Mike Curran and Paul Sanborn organized meetings held on March 29 and April 4 at U.B.C. The guest speakers, Keith Valentine and Terry Lewis, gave very informative and interesting presentations about their work as soil scientists in government and private consulting, respectively. The organizers thank both Keith and Terry very much for generously assisting the chapter in getting its activities off to a successful start. Effectively immediately, student membership in the Society will be \$3 (regular membership is \$5).

**B.C. CHAPTER OF THE S.C.S.A. NOW OFFICIAL**

At a recent inaugural meeting in Vancouver, the British Columbia Chapter of the Soil Conservation Society of America (SCSA) was founded. The SCSA is a non-profit scientific and educational organisation dedicated since 1945 to promoting the conservation of land and water resources. It has 13,000 members worldwide. The SCSA has 165 Chapters throughout North America, of which four are located in Canada. The British Columbia Chapter is now the most recent Chapter, with approximately 50 members from a variety of resource related fields. These members represent many disciplines concerned with the wise use of land and water resources. Single profession organisations are important in their own right, but the most beneficial management and conservation of our natural resources should follow an holistic approach - a coordinated effort involving all related disciplines.

The inaugural meeting was attended by 27 people, including 16 members. Special guests were Walt Peechatka, Executive Vice-President from SCSA Chapter (Washington State). After the Bylaws were adopted, the following officers were elected for the coming year: President - Laurens van Vliet, President-Elect - Herb Luttmerding; First Vice-President - Terry Lewis; and Councillors - Al Lidstone and Gary Runka. Craig Wood was appointed Secretary-Treasurer by the Executive. Chapter dues were set in U.S. \$5.00; students are exempt. The rest of the evening was spent on B.C. Chapter programs and direction, which resulted in an excellent discussion.

The objectives of the B.C. Chapter for the coming year are to organize meetings, increase membership to 60, to produce a quarterly newsletter, and to devise a strategy for ongoing public education in good resource management. The B.C. Chapter has scheduled two dinner meetings, a summer tour and picnic, and an annual winter (technical) meeting.

The potential for individual member participation in committees, Chapter programs and activities is virtually unlimited. Membership in the B.C. Chapter is open to anyone interested. For information, contact Allan Lidstone, Membership Chairman, at 228-9406 (2748 Keremos Court, Vancouver, B.C. V6T 1N5).

**REPORT FROM AGRICULTURE CANADA RESEARCH STATION, KAMLOOPS**  
Irrigated Silage Corn Fertilizer

Tentative fertilizer recommendations have been developed based on a nineyear cooperative project with B.C. Ministry of Agriculture and Food (BCMA & F) involving thirty site-years. They take into account soil test values and current estimated profit margins. Further trials are planned considering date

and depth of soil sampling. No significant yield response was found for phosphorus (P) or potassium (K). Soil test values on these sites were above 20 and 200 pp2m for P and K, respectively. Thus, values higher than these would be considered nearly adequate and only a maintenance rate of P or K would be recommended. Nitrogen (N) fertilization showed significant yield response between 10 and 50 pp2m soil test value. Tentative recommendations were developed to achieve a range of expected yields up to 95% of average maximum yields, which ranged between 7.0 and 5.4 t dry matter/ac/yr, depending on site.

In 1976, a cool wet season, whole plant yields were about 2/3 of average and cob development was negligible. Certain varieties yielded less than half that of recommended varieties. These yields were associated with mid-season leaf magnesium concentrations of less than 0.2% and greater than 0.3%, respectively. No other nutrient deficiency symptoms were noted in the study.

#### Crested Wheatgrass N Fertilization

Three grassland study sites were selected: Cache 1650 ft elevation, Nicola 2675, and Knutsford 2950. Precipitation increases with elevation of site. Single application of N fertilizer (urea) were made in the fall and yields were recorded for four years. Little response occurred at the driest site (Cache). 50% increase over the unfertilized check yield (250 lb DM/ac/yr for an application rate of 45 lb N/ac with no further increase beyond that rate). Much better response was obtained at the two wetter sites up to the 90 lb N/ac rate; 86% over check yield (390 lb DM/ac/yr) for Nicola and 126% over check (535 lb DM/ac/yr) for Knutsford. Data indicates that a further increase a higher N rates would have been obtained at Knutsford (wettest) but not at Nicola.

#### Reed Canarygrass (RCG) Fertilization on Wetlands

A series of cooperative trials with B.C.M.A. & F. on wetland sites indicate that RCG generally responds to N, P, and K fertilization. For current hay and fertilizer prices it appears economical to fertilize up to 70 or 80% maximum expected average yield, which ranged between 2 and 4.5 t DM/ac/yr depending on elevation and its effect on growing season climate.

Based on soil, Canada Land Inventory and National Topographic maps, a summary of the percent of land occupied by wetlands, above and below 3000 ft elevation, is presented, by region, for the southern interior of B.C.

Region	Below 3000 ft	Above 3000 ft	Total
Kamloops	0.84	0.77	1.61
Williams Lake	0.29	2.32	2.61
Prince George	2.07	1.21	3.28

The 3000 ft division is arbitrary but below 3000' two cuts are usually obtained if the first cut can be taken before July 1. Refertilization with N will allow a second cut nearly equal to that of the first cut. Above 3000' only one cut, sometimes with a grazeable aftermath will be obtained. In Prince George region there is much higher proportion of mineral wetland (Gleysolic) soils compared to organic wetland. The mineral type is much more fertile and should produce higher yields with less fertilizer.

Dr. A. van Ryswyk

**NEWS, etc.**

Norm (P.N.) Sprout retired March 31, 1984, after 35 years of soil and resource inventory activity in B.C. Norm spent two years with the B.C. Ministry of Agriculture (and Food) where he began his career on Southern Interior soil surveys and became a prominent figure in the Canada Land Inventory. He then spent ten years with the B.C. Ministry of Environment, promoting integrated resource inventory and playing a major role in the B.C. Soil Information (BCSIS).

John (J.H.) Day retired in April, 1984, after three years with Agriculture Canada. John was responsible for much of the early survey on Vancouver Island. After moving to Ottawa, he became Western Correlator and then National Correlator and Head of the Inventory Section of the Land Resource Research Institute.

Art Bomke has been appointed Western Councillor for the Canadian Society of Soil Science.

**UPCOMING MEETINGS**

June 11-13. Symposium co-sponsored by the Department of Entomology and Soil Science, University of Alberta, Edmonton. Theme: Faunal Influences on Soil Structure. Contact: Faculty of Extension, 238 Corbett Hall, University of Alberta, Edmonton, AB. T6M 3E2.

June 16-17. Northwest Forest Soils Council, Okanagan Field Trip, Kelowna, B.C. Contact: Bob Louie, Ministry of Environment, 1873 Spall Road, Kelowna, B.C. V1Y 4R2 (Phone 860-7393).

June 27-28, 1984. Workshop on Remote Sensing, sponsored by UBC Remote Sensing. (This workshop will feature activities by UBC, government agencies and consultants, and two field trips to on- and off-campus facilities.) Location: Room 166, MacMillan Building, UBC Campus. Starts at 10 a.m., June 27; ends 3 p.m., June 28, 1984. All are welcome. Contact: Dr. Peter Murtha, UBC Department of Soil Science.

July 11-13, 1984. Southern Interior Silviculture Committee, 1984 Workshop: Site Preparation in the ESSF Zone, Fernie, B.C. Contact: Gary Halber, Crestwood Forest Industries Ltd., P.O. Box 4600, Cranbrook, B.C. V1C 4J7. Phone: 426-6241 (local 314).

July 29-August 1, 1984. Soil Conservation Society of America 39th Annual Meeting. Location: Oklahoma City, Oklahoma. Contact: SCSA, 7515 Northeast Ankeny Road, Ankeny, Iowa 50021.

August 5-11, 1984. Joint meeting of American and Canadian Society of Horticultural Science. Theme: Soil Management for Horticultural Crops; Location: University of British Columbia, Vancouver. Contact: Dr. N.E. Looney, Agriculture Canada, Research Station, Summerland, B.C. VOH 1Z0.

August 13-17, 1984. Ninth Canadian Symposium on Remote Sensing. Theme: Remote sensing for the development and management of frontier areas. Contact: Dr. Denes Bajazk, Faculty of Engineering and Applied Sciences, Memorial University of Newfoundland, St. John's, NFLD A1B 3X5.

August 19-22, 1984. A.I.C. Annual Conference. Theme: Hi-Tech Agriculture. Location: University of Manitoba, Winnipeg. Contact: Jack D. Giles, 1770 Ness Avenue, Winnipeg, Manitoba R3J 0Y1.

August 21-24, 1984. Canadian Land Reclamation Association Annual Meeting. Theme: Reclamation in mountains, foothills and plains; doing it right! Location: Calgary, Alberta. Contact: Jennifer Hansen, c/o Reid, Crowther and Partners Ltd., 7410 Blackfoot Trail S.E., Calgary, Alberta T2H 1M5.

August 22-24, 1984. B.C. Chapter, Society for Range Management, Summer Field Tour - Dawson Creek area. Contact: Ross Green, B.C. Ministry of Agriculture, Dawson Creek, B.C.

August 24-25, 1984. Symposium on Clay Mineralogy in Industry and the Environment. Location: University of Calgary Campus. Contact: Prof. G.K. Rutherford, Department of Geography, Queen's University, Kingston, Ontario K7L 3N6.

August 26-29. Canadian Society of Soil Science Annual Meeting, Banff, Alberta. Contact: Dr. R.L. Thomas, Dept. of Land Resource Science, University of Guelph, Guelph, Ontario N1G 2W1.

October 15-19, 1984. International Symposium on Land Information Systems. Theme: The Decision Maker and Land Information Systems. Location: Edmonton Convention Centre. Contact: FIG (International Federation of Surveyors) Commission 3 Symposium, P.O. Box 5458, Postal Station "E", Edmonton, Alberta T5P 4C9

November 25-30, 1984. American Society of Agronomy Annual Meetings. Location: Las Vegas, Nevada. Contact: American Society of Agronomy, 677 South Segoe Road, Madison, Wisconsin 53711.

#### NEW PUBLICATIONS

1. R.N. Colwell (ed.). 1983. Manual of Remote Sensing. (New edition, 2 vols.) (\$132 Cdn.) American Society of Photogrammetry, 210 Little Falls Street, Falls Church, Virginia 22046, USA.
4. R. Hallberg (ed.). 1983. Environmental Biogeochemistry. Publishing House of the Swedish Research Councils, Box 6710, S-11385, Stockholm, Sweden. (\$37 US) Reviews biogeochemistry of rivers and seawater, sulphur, nitrogen, carbon, metals, etc.)
2. P. Koorevaar, G. Menelik, and C. Dirksen. 1983. Elements of Soil Physics. (\$32) Elsevier Science Publishing Co. Inc., 52 Vanderbilt Avenue, New York, NY 10017, USA.
3. J.M. Lynch. 1983. Soil Biotechnology: Microbial Factors in Crop Productivity. Blackwell Mosby Book Distributors, 120 Melford Drive, Scarborough, ON M1B 2X4. (Approximate cost \$20) (Contains an up-to-date review of microbial ecology with suggestions for manipulation, mainly in agricultural systems.)
5. S. Rieger. 1983. The Genesis and Classification of Cold Soils. Academic Press.
6. L.P. Wilding, N.E. Smeck and G.F. Hall (eds.) 1983. Pedogenesis and Soil Taxonomy. Part I. Concepts and Interactions. (\$49 US)  
Part II. The Soil Orders. (\$55 US) Elsevier Science Publishing Co. Inc., 52 Vanderbilt Avenue, New York, NY 10017, USA.

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All members of the Pacific Regional Society of Soil Science are encouraged to contribute to the Newsletter. Current projects, opinions/views or problems for discussion, new books, journal articles or project reports; upcoming meetings; member news and address changes are all welcome and encouraged.

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Please submit contribution and outstanding fees to: PRSSS, C/o Dept. of Soil Science, Suite 139, 2357 Main Mall, Vancouver, B.C. V6T 2A2.