

Summary of the DRI User Workshops

Rick Lawford
DRI Workshop
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During the January 2009 PAC meeting in Regina, it was recommended that a users workshop should be held.

After several false starts and difficulties caused by provincial austerity programmes, it was decided that we should hold workshops in each of the prairie provinces.

During the first four months three provincial workshops were held.

January 14, 2010: Manitoba Users workshop, Winnipeg

April 6, 2010: Alberta Users Workshop, Edmonton

April 8, 2010: Saskatchewan Users Workshop, Regina

The workshops had 16 to 30 people in attendance.

Objectives:

- 1) To inform users from each province of the research results from the Drought Research Initiative that may be useful to their applications.
- 2) To obtain input on the elements of the potential DRI legacy that would be most useful for users.

Manitoba Workshop (Winnipeg):

Characteristics:

This workshop featured good dialogue on water management issues since we had good participation from the water sector (Manitoba Water Stewardship, Manitoba Hydro, Red River Basin Commission). It also featured a very active DEWS session.

(from Paul Bullock)

Statistically Significant Drought Index Correlations by Category

	AC Barrie	Superb
Water Supply Indices	0	3
Water Demand Indices	19	24
Water Balance Indices	14	18
Water Use Indices	7	7

Evapotranspiration provides a more accurate estimate of wheat yield and quality than precipitation and should be utilized for assessment of agricultural drought.

Manitoba Workshop (Winnipeg):

Primary Recommendations:

- 1) As part of its legacy DRI should facilitate the development of a drought Community of Practice for the Canadian prairies.
- 2) DRI should work with AAFC to identify areas where the two groups could collaborate so that the results from DRI could be incorporated into operational services.

Alberta Workshop (Edmonton):

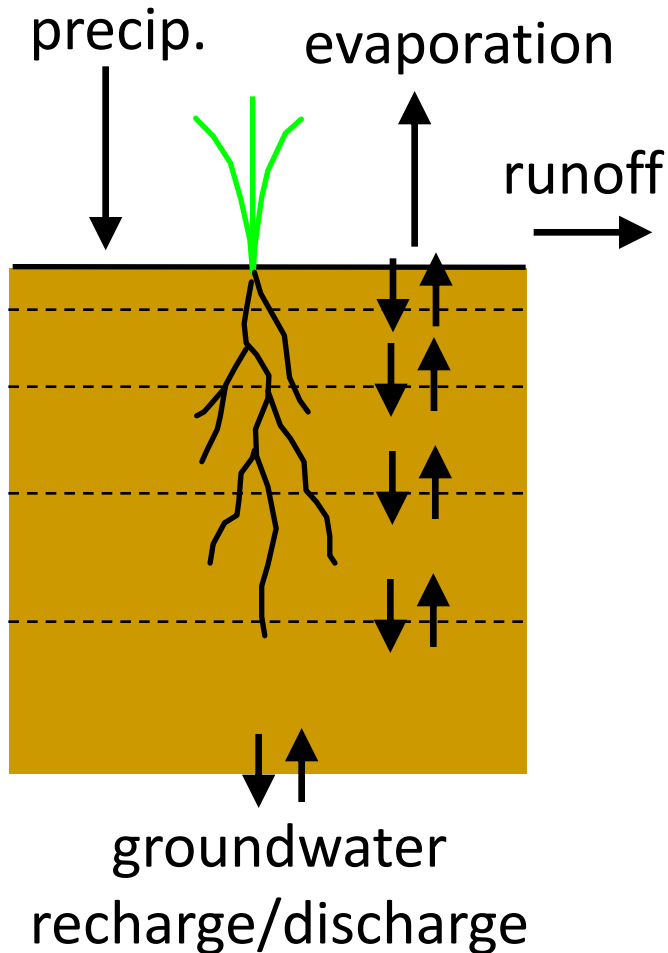
Characteristics:

There was a strong contingent of agriculture specialists in attendance as well as municipal level water managers.

Participants came with a real interest in getting something out of DRI now to solve their immediate problems.

Discussions also highlighted some of the economic benefits (and issues) of improved seasonal forecasts for crop insurance.

Parameterizations developed through DRI have improved the reliability of the Versatile Soil Moisture Budget (VSMB) leading to a more reliable basis for forage crop insurance programs (M. Hayashi)



- Potential E by Priestley-Taylor
- $E = E_{\text{pot}} \times \text{drying function}$
- Crop stages by degree-day
- Gravity drainage of soil water to field capacity
- Soil temperature does not consider freezing
- Snowmelt runoff by a simple rational method

Alberta Workshop (Edmonton):

Primary Recommendations:

- 1) Users would like to see a bulleted list of DRI accomplishments that they could use directly in their newsletters, etc.
- 2) DRI legacy could provide guidance to provincial data services on ways to integrate meteorological and hydrological data sets.

Saskatchewan Workshop (Regina):

Characteristics:

This was the smallest of the three workshops with those familiar with DRI outnumbering those who were unfamiliar.

The discussions dealt with issues such as desired lead times for forecasts and the various applications that could be undertaken with DRI data.

New AAFC priorities for Monitoring and Forecasting offer opportunities for DRI

- Remote sensing is being developed with other federal partners for soil moisture (DRI SM modelling inputs to project and mission plans?)
- Tax Deferral has been taken on as an important activity of NAIS. (Could DRI analysis show the best meteorological criteria to use for tax deferral recommendations?)
- Formulate Decision Support Tools based on needs identification (Could DRI provide scientific support for these tools from its development of models and analysis tools?)
- Develop useful interfaces to provide information to a wide range of users in an understandable format. (Is the DRI data legacy system/ web portal a possible interface?)
- Link climate foundation tools to crop and pasture models for management DST, regional supply curve estimation. (Work by Masaki and others is already improving models used for pasture productivity).



Saskatchewan Workshop (Regina):

Primary Recommendations:

- 1) DRI should develop a short document showing the contributions that DRI Science has made to the operations of NAIS and AAFC.
- 2) DRI should assess how its results could help with the better management of waterfowl habitat and water fowl populations during drought.
- 3) DRI should consider options other than CFCAS to support its renewal.

Summary:

The DRI user workshops were an effective way for engaging users. It provided an opportunity for one-on-one dialogue between users and DRI scientists.