



# **ISTRO INFO**

**A Publication of the  
International Soil Tillage Research Organization**

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## ISTRO INFO – December 2006

With many wonderful Christmas wishes coming in each day from ISTRO colleagues around the world, I realized that it was time to get busy with the December issue of this newsletter. First of all I want to wish everyone associated with the ISTRO a very Merry Christmas and Happy New Year! Hopefully everyone will get a chance to spend some time with their families and friends during this holiday season and be able to give thanks for the many blessings that we have all received during the past year.

Our members were treated to a wonderful 17<sup>th</sup> Triennial Conference in Kiel, Germany organized by our past-President Rainer Horn. The ***Soil and Tillage*** journal has published several excellent articles that enable all of us to stay on top of the science and technology associated with soil resources and various tillage (and no-tillage) processes. Several of our Branch Chapters are strong and getting stronger. There are also new Branch Chapters being formed with the most recent inquiry coming from Mexico. To facilitate their organizational meeting, the ISTRO Board recently approved sending the Branch Coordinator, Dr. John Morrison, and ISTRO President-elect, Dr. Oswaldo Ernst, to meet with them early next year. In addition to these organizational blessings, I hope that all of you had a very successful year of research and that all continues to go well for you in 2007.

As always, I want to once again remind everyone to feel free to pass on your copy of this newsletter and to invite your colleagues to join in the benefits of being a member of ISTRO. Also, if you would like to translate this newsletter into your local languages, please feel free to do so. Finally, I want to once again encourage everyone to send me information about your research activities and interests so that I continue to have abundant and worthwhile information to share in future issues.

Cheers,

Doug Karlen

Assistant Secretary General

## **Hungarian Branch Report**

The Hungarian Branch of ISTRO was formed on April 30, 1993. Currently they have 46 active members and 11 honorary members. During the past 3 years, members have shown a great amount of activity in scientific research on soil tillage and related fields (soil physics, soil and environment conservation, crop production, mechanization). They have also actively promoted the application of their results by making presentations at national (235 presentations) and international (76 presentations) conferences. Members have also participated in soil tillage (52) and crop production (33) demonstrations and ploughing contests. Themes of these conferences have included: soil quality, reduced tillage, soil conservation tillage, climatic extremes, water quality, crop quality, N-fertilization and leaching, environmental sound management, sustainable land use, and use of GPS systems.

Many new ideas and methods were published in textbooks, special issues of farmers' journals and leaflets. Branch members also provided help for farmers concerning the EU connection (Hungary has member of European Union from 1<sup>st</sup> May 2004). Most of the members have also built very good scientific cooperative relations in Central and Western European and in the USA. The Hungarian Branch of ISTRO also gives moral and financial support to young scientists, too. Other financial support was provided to honor scientific student activities and for organization of memorial conferences.

For more information about the Chapter, please contact the Branch President – Mamrta Birkas at [Birkas.Marta@mkk.szie.hu](mailto:Birkas.Marta@mkk.szie.hu).

## **VISUAL SOIL STRUCTURE ASSESSMENT – Final Report**

In May 2005, a field meeting was held in northern France. The objective was to compare ten different methods which have been developed in different parts of the world to assess soil structure directly in the field. Each method was to be used on the same soil so that the results could be compared. The methods use visual and tactile techniques to make the assessment; some are used to evaluate the physical condition

of the topsoil (tilled layer) and others of the whole soil profile (the entire root zone). Facilities were provided by INRA so that it was possible to demonstrate and evaluate each method on the same soils on four areas of land with contrasting structure.

The results of each test were presented to the whole group who were thus able to question and discuss the findings. This comment applies equally to clients who can be shown key features by a consultant and discuss the results on-the-spot without delay. The amount of time allocated for the investigations was restricted. Nevertheless some important results were obtained. The methods which were most destructive of the soil (and also the most expensive in terms of time and equipment) were shown to be very flexible and could locate compact zones even when these were small. All three 'whole-profile' methods enabled an evaluation of both the inherent capability of the land to be made as well as an evaluation of current soil management. However, the main problem with such a plethora of information obtained from a trench several meters long was how to communicate and summarize the results in a form that would be readily understood by the intended audience.

The two-part final report will be posted on the ISTRO website or is available now from Hubert Boizard ([boizard@mons.inra.fr](mailto:boizard@mons.inra.fr)) or Tom Batey ([tbatey@macunlimited.net](mailto:tbatey@macunlimited.net)).

## **Is Ethanol Production Sustainable?**

Throughout the U.S. and around the world, public and private interest in bio-energy and more specifically ethanol production is increasing very rapidly. This will undoubtedly increase corn production in the U.S., but as Duane Sand points out in the Fall issue of the *Iowa Natural Heritage* magazine, ethanol cannot be considered a renewable fuel if its production "mines" precious topsoil from highly erodible slopes.

Sand writes that according to the USDA National Resources Inventory, water erodes an average of 4.9 tons of topsoil per acre annually from Iowa's cultivated cropland. Dividing that soil loss by the estimated 2006 average corn yield for Iowa (173 bu ac<sup>-1</sup>) and then by 2.7 gallons of ethanol produced per bushel, he finds a ratio of 20 pounds of soil

washed away per gallon of ethanol produced. Sand concludes that to make ethanol a truly renewable fuel, farmers must be given appropriate assistance and encouragement to improve their soil conservation practices. Undoubtedly, this is also an emerging challenge for many of our ISTRO members.

## **Conservation Agriculture in Europe**

The Millennium Ecosystem Assessment (<http://www.millenniuimassessment.org>) states that we are “living beyond our means.” In a free book entitled “Conservation Agriculture in Europe” that is available at [www.sowap.org](http://www.sowap.org), the authors review experiences of Conservation Agriculture (CA) approaches to crop production with their aim being provide a balanced view of the advantages and limitations of CA.

The book contains over 100 pages and is divided into two parts. The first summarizes experiences of CA worldwide and the context for any wider implementation in Europe. The second part of the book provides general guidelines for the practical introduction of CA across a range of European cropping systems. The supply of books is limited so please request only one copy for each postal address.

## **New Books**

A new book by Thierry Doré, Marianne Le Bail, Philippe Martin, Bertrand Ney, Jean Roger-Estrade entitled “*L'agronomie aujourd'hui* (Agronomy Today) with a preface by de Michel Sebillotte is now available. Written in French, the book examines how agronomy has changed over the past thirty years, broadening its scales of approach, modernizing its work tools and revising its study topics. The book, based on a substantial bibliography, sets out to trace the changes by demonstrating the scope of agronomy today.

The book is intended for students, professionals and researchers who are not specialists in agronomy, who are interested in a comprehensive, well-documented overview of the changes in this field. It is accompanied by a CD-ROM containing about one hundred reference articles on agronomy.

Available at <http://www.quae.com/livre/?GCOI=27380100288670&language=en>, the book is 384 pages in length and costs 35 Euro. For reference librarians, see ISBN: 2759200000 or ISBN13: 9782759200009.

## **Soil Carbon Information**

ISTRO member Dr. Don Reicosky has once again provided information that may be useful to other members interested in soil carbon. The links are to what Don considers “excellent” web sites on soil protection in the European Union. They are the general link to the European Commission’s thematic strategy on soil protection:

<http://ec.europa.eu/environment/soil/index.htm> and a very long article on soil carbon entitled “Reports of the technical working group’s established under the automatic strategy for soil protection.” The latter is entitled “Volume III. Organic Matter” <http://ec.europa.eu/enviromnent/soil/pdf/vol3.pdf>

Once again, I would like to thank Don for sharing this information and encourage other members of ISTRO to share information about their research or simply articles that may be of interest to readers of ISTRO INFO.

## **Final Comments**

As an ending for this final 2006 issue of ISTRO INFO, I would like to share an article that recently crossed my desk. It was prepared by my Agency’s Professional Administrative Support Task Group (PASTG). I found this summary of December celebrations very interesting and hope that you too will enjoy this non-technical addition. Please note that the original authors for each section are given credit for their contribution in the appropriate by-lines. Once again I invite all members of ISTRO to circulate this newsletter to your colleagues and friends and of course to please send me any information that you think others might be interested in. ISTRO INFO is your newsletter, so please do your best to provide the news!

## DECEMBER HOLIDAY CELEBRATIONS

Submitted by Melissa Stiefel

Many holidays are celebrated at this time of year. The following paragraphs give a short description of the holiday, its origins, and some of its customs. This information was compiled from many different web sites on the Internet.

### **Kwanzaa**

Kwanzaa is an African American holiday that is celebrated from December 26 through January 1 and is based on the agricultural celebrations of Africa called “the first fruits” celebrations. These celebrations were times of harvest, ingathering, reverence, commemoration, and recommitment. Therefore, this holiday is a time for African Americans to celebrate their heritage and their achievements. Kwanzaa was created in 1966 by Dr. Maulana Karenga, professor and chair, Department of Black Studies at California State University, Long Beach. Kwanzaa is a *cultural* holiday, not a religious one, so this celebration can be practiced by African Americans (or anyone) of all religious faiths.

*The Seven Principles of Kwanzaa.* Kwanzaa was created to introduce and reinforce seven basic values of African culture. These values are called the *Nguzo Saba*, which, in Swahili, means *Seven Principles*. Following are the seven principles, the days they are celebrated, and what they represent:

- Umoja (Unity) - celebrated December 26. To strive for and maintain unity in the family, community, nation and race.
- Kujichagulia (Self-Determination) - celebrated December 27. To define ourselves, name ourselves, create for ourselves and speak for ourselves.
- Ujima (Collective Work and Responsibility) - celebrated December 28. To build and maintain our community together and make our brother's and sister's problems our problems and to solve them together.

- Ujamaa (Cooperative Economics) - celebrated December 29. To build and maintain our own stores, shops and other businesses and to profit from them together.
- Nia (Purpose) - celebrated December 30. To make our collective vocation the building and developing of our community in order to restore our people to their traditional greatness.
- Kuumba (Creativity) - celebrated December 31. To do always as much as we can, in the way we can, in order to leave our community more beautiful and beneficial than we inherited it.
- Imani (Faith) - celebrated January 1. To believe with all our heart in our people, our parents, our teachers, our leaders and the righteousness and victory of our struggle.

*The Seven Symbols of Kwanzaa.* Each of the seven symbols below represents values and concepts reflective of African culture:

- Mazao (The Crops) - Symbolic of African harvest celebrations and of the rewards of productive and collective labor.
- Mkeka (The Mat) - Symbolic of our tradition and history and therefore the foundation on which we build.
- Kinara (The Candle Holder) - Symbolic of our roots, our parent people--continental Africans.
- Muhindi (The Corn) - Symbolic of our children and our future which they embody.
- Mishumaa Saba (The Seven Candles) - Symbolic of the Nguzo Saba, the Seven Principles, the matrix and minimum set of values which Black people are urged to live by in order to rescue and reconstruct their lives in their own image and according to their own needs.
- Kikombe cha Umoja (The Unity Cup) - Symbolic of the foundational principle and practice of unity which makes all else possible.
- Zawadi (The Gifts) – Symbolic of the labor and love of parents and the commitments made and kept by the children.

*Gift-giving.* Gift-giving is another tradition in celebrating Kwanzaa. Gifts are given mainly to children and should include a book (emphasizing the African value and tradition of learning) and a heritage symbol (reaffirming the African commitment to tradition and history).

*The Kinara.* During Kwanzaa candles are placed in a candleholder called a Kinara, which holds seven candles representing the seven principles discussed above. The candle colors are red (3), green (3), and black (1)—the colors of the African flag. When placing the candles in the Kinara, the three red candles are placed on the left side. The three green candles are placed on the right. The single black candle is placed in the center and is the candle which will be lit first. On each day of Kwanzaa a new candle will be lit as a symbol of that day. The candles will be lit in alternating colors. First the black candle is lit, then the farthest red left candle, then the farthest right green candle, and so forth.

### **Hanukkah**

Hanukkah is the annual Jewish festival that is celebrated for eight successive days, beginning on the 25<sup>th</sup> day of Kislev, the third month of the Jewish calendar, which corresponds to the month of December in the Gregorian calendar. Also known as the Festival of Lights, this holiday commemorates the rededication of the Temple of Jerusalem by Judas the Maccabee in 165 BC after the Temple had been defiled by Syrian King Antiochus IV. When the sacred Temple Menorah was relit, there was enough oil to burn for only one day. Yet, according to tradition, the Menorah stayed lit for eight days.

*The Hanukiyah.* The Menorah used to celebrate Hanukkah, called a Hanukiyah, which holds nine candles. The ninth candle, the Shamash, is used to light the other eight candles on each of the eight days of the celebration.

*Gift-giving.* Traditionally, children would receive gifts of gelt (in remembrance of the coins minted by the new independent Maccabee state). The tradition of giving and receiving gifts other than coins on these eight days is a fairly recent practice. Since Christians exchange gifts for Christmas, those who practice the Jewish faith have come to exchange presents as well.

## **Christmas**

For Christians, Christmas is a celebration of the birth of Jesus Christ, the Savior of mankind.

*Traditions.* Many of the traditions of this holiday were taken from pagan celebrations. At the time of Christ's death, the Romans ruled Judea and the early Christians witnessed many different Roman celebrations. The Romans celebrated Saturnalia, which began in the middle of December and lasted until January 1<sup>st</sup>. They hung garlands of laurel and had green trees lit with candles as part of the celebration. They also exchanged gifts called *Strenae*, meaning "lucky fruits." As Christianity spread, some of the converts continued to observe the traditions of this "pagan" Roman holiday. They incorporated lighted trees, hanging garland, and gift-giving into their own celebration of the birth of Christ. Finally, in 350 A.D., the Bishop of Rome, Julius I, chose December 25<sup>th</sup> as the official observance of Christmas.

*Gift-giving.* Santa Claus is the gift-giving icon of the holiday season. The American name of "Santa Claus" is a mispronunciation of the Dutch *Sinterklaas*, which is a contracted form of Sint Nicolaas (St. Nicholas). The traditionally held belief about Santa is that he keeps a list of naughty and nice children, and on the night of December 24<sup>th</sup> he distributes present to the sleeping "nice" adults and children. Santa Claus is a well-known figure in many countries and has many names and traditions associated with him.

## **CHRISTMAS IN THE UK**

Submitted by Dr. Jeremy Marchant-Forde

As many UK businesses and even some whole industries have a Christmas shut-down from December 24<sup>th</sup> until the New Year, Christmas is unsurprisingly the biggest family-based holiday in the UK. However, like the US, its Christian roots are causing it to become a more generic festive holiday to encompass the other faiths which now make up 25% of the UK population. This incorporation is really nothing new, as traditional Christmas symbols such as mistletoe and Yule logs have been incorporated from Celtic and Viking pagan ceremonies. For most, celebrations begin with outings to the pub on Christmas Eve and maybe midnight mass on the way home! Early Christmas morning sees the exchanging and opening of presents by the tree.

Lunch is roast turkey and all the trimmings including cranberry and bread sauces, followed by Christmas pudding – a heavy dessert made of suet, dried fruit, nuts, and brandy, into which lucky silver sixpences have been hidden – and brandy butter. At 3:00 pm, the Queen broadcasts to the nation on the TV, usually as the nation sleeps off lunch! The rest of the day is more eating, drinking and playing. The next day is also a public holiday – the wonderfully named Boxing Day. This has nothing to do with the sport and is thought most likely to have arisen when employees and tradesmen carried ‘boxes’ on the day after Christmas, into which gifts or money were given by employers and customers – really like getting a Christmas bonus! Nowadays, it’s the day for more family get-togethers and eating that cold turkey! The whole of the week follows a similar trend as turkey recipes become more and more imaginative and the country finally gets back to normal on 2<sup>nd</sup> January.

## **CHRISTMAS IN POLAND**

Submitted by Karen Burianek

Traditionally in Poland, Advent marks the beginning of the Christmas Season. There is no Santa Claus as we know him. In Poland he is known as St. Nicholas, and he visits

homes twice in December; once on December 6, his feast day, and again on Christmas Eve.

In Poland there are no Christmas parties before Christmas Eve and everyone works on Christmas Eve Day. The beginning of Christmas celebrations takes place around the dining table. A white tablecloth, symbolizing this special occasion of Christmas, is used. A few pieces of straw are placed under the tablecloth to symbolize the hay of the stable where Jesus was born. An extra place is set and the seat left empty for a special guest who may show up unexpectedly.

The main celebration starts at dusk on Christmas Eve with the reading of the story of the birth of Jesus followed by the breaking and sharing of special unleavened white bread (similar to a Christian communion service). This is to symbolize sharing together. Each person is given a piece of bread along with Christmas wishes. After the bread-breaking ceremony is completed, twelve different dishes, including appetizers, soup, different kinds of fish, pastas (purogi—dough filled with cabbage), potatoes, cabbage with mushrooms, and baked goods consisting of gingerbread cookies, decorated Christmas cookies, poppy seed cake, cheese cake, and candy are served. No meats are served on Christmas Eve.

After eating, everyone sings Christmas carols for about an hour. If there are other relatives living nearby, family members will then take some special bread to them and share Christmas wishes. They attend a midnight mass service and then return home to bed.

St. Nicholas visits each home and leaves one present for each family member. On Christmas Day, family members gather around the tree to open the gift from St. Nicholas and then exchange gifts from each other.

Big meals with many different meats, cakes, and wine follow, and people go caroling and partying for 12 days of Christmas. The Feast of the Epiphany is the end of the Christmas Season, though decorations may be kept up until the end of January. New Year's Eve, New Year's Day, and the Feast of the Three Kings (January 6th) are also celebrated.

Regardless of the type of Holidays that you and your families will be spending together during the next few weeks – may your lives continue to be filled with blessings and good cheer.

Doug Karlen  
Assistant Secretary General