

President— Barry

Spoke Newsletter

Wednesday October 18 2017

Attendance: 28 (62%) Attendance with make ups: 32 (71%)

Program Wednesday, October 25, 2017

Maury Johnson, Blue River Hybrids, Organic Seed Company

Program arranged by Wayne Casper

Program Wednesday, October 18, 2017

Lorin Krieger - John Deere Precision Ag Manager

Program arranged by Wayne Casper



Photo courtesy of Facebook

Global Positioning System (GPS)

The GPS is owned and operated by the U.S. Department of Defense but is available for general use around the world. Briefly, here's how it works: 21 GPS satellites and three spare satellites are in orbit at 10,600 miles above the Earth. The satellites are spaced so that from any point on Earth, four satellites will be above the horizon. Each satellite contains a computer, an atomic clock, and a radio. With an understanding of its own orbit and the clock, it continually broadcasts its changing position and time. (Once a day, each satellite checks its own sense of time and position with a ground station and makes any minor correction.) On the ground, any GPS receiver contains a computer that "triangulates" its own position by getting bearings from

three of the four satellites. The result is provided in the form of a geographic position - longitude and latitude - to, for most receivers, within 100 meters. In Precision Ag within inches. If the receiver is also equipped with a display screen that shows a map, the position can be shown on the map. If a fourth satellite can be received, the receiver/computer can figure out the altitude as well as the geographic position. If you are moving, your receiver may also be able to calculate your speed and direction of travel and give you estimated times of arrival to specified destinations. The GPS is being used in science to provide data that has never been available before in the quantity and degree of accuracy that the GPS makes possible.

The development and implementation of precision agriculture or site-specific farming has been made possible by combining the Global Positioning System (GPS) and geographic information systems (GIS). These technologies enable the coupling of real-time data collection with accurate position information, leading to the efficient manipulation and analysis of large amounts of geospatial data. GPS-based applications in precision farming are being used for farm planning, field mapping, soil sampling, tractor guidance, crop scouting, variable rate applications, and yield mapping. GPS allows farmers to work during low visibility field conditions such as rain, dust, fog, and darkness.

A Rotary Thank You to Lorin Krieger for very informative presentation on GPS and Precision Agriculture in Nebraska

Lincoln East Rotary Club
Meetings at Valentino's—70th & Van Dorn
Noon Luncheon starting @ 11:45 a.m.

October 18 2017

In the past, it was difficult for farmers to correlate production techniques and crop yields with land variability. This limited their ability to develop the most effective soil/plant treatment strategies that could have enhanced their production. Today, more precise application of pesticides, herbicides, and fertilizers, and better control of the dispersion of those chemicals are possible through precision agriculture, thus reducing expenses, producing a higher yield, and creating a more environmentally friendly farm.

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Precision agriculture is now changing the way farmers and agribusinesses view the land from which they reap their profits. Precision agriculture is about collecting timely geospatial information on soil-plant-animal requirements and prescribing and applying site-specific treatments to increase agricultural production and protect the environment. Where farmers may have once treated their fields uniformly, they are now seeing benefits from micromanaging their fields. Precision agriculture is gaining in popularity largely due to the introduction of high technology tools into the agricultural community that are more accurate, cost effective, and user friendly. Many of the new innovations rely on the integration of on-board computers, data collection sensors, and GPS time and position reference systems.



Today, many farmers use GPS-derived products to enhance operations in their farming businesses. Location information is collected by GPS receivers for mapping field boundaries, roads, irrigation systems, and problem areas in crops such as weeds or disease. The accuracy of GPS allows farmers to create farm maps with precise acreage for field areas, road locations and distances between points of interest. GPS allows farmers to accurately navigate to specific locations in the field, year after year, to collect soil samples or monitor crop conditions.

Crop advisors use rugged data collection devices with GPS for accurate positioning to map pest, insect, and weed infestations in the field. Pest problem areas in crops can be pinpointed and mapped for future management decisions and input recommendations. The same field data can also be used by aircraft sprayers, enabling accurate swathing of fields without use of human “flaggers” to guide them. Crop dusters equipped with GPS are able to fly accurate swaths over the field, applying chemicals only where needed, minimizing chemical drift, reducing the amount of chemicals needed, thereby benefiting the environment.

Farmers and agriculture service providers can expect even further improvements as GPS continues to modernize. In addition to the current civilian service provided by GPS, the United States is committed to implementing a second and a third civil signal on GPS satellites. The first satellite with the second civilian signal was launched in 2005. The new signals will enhance both the quality and efficiency of agricultural operations in the future.

TOGETHER, WE MAKE A DIFFERENCE

Join us **Wednesday, October 25th**
at the 48th & O Runza® location

15% of sales

**From 5—8p.m. will be donated to the
Rotary International Zambia Project.**

Invite your family, friends, co-workers & Neighbors to
dine-in, carry-out or drive-thru
to help support Rotary International!



48TH & O Street



Lincoln East Rotary Club

Teacher of the Month—September 2017

Alan Holdorf— Lincoln Southeast High School



*Lincoln East Rotary Club Members extend a **sincere thank you and congratulations** to Alan Holdorf for being an outstanding teacher in the Lincoln High Schools.*



Anniversaries & Birthdays

Week of October 4

Birthdays:

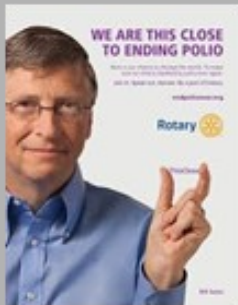
Ozzie Gilbertson—October 2
Minnie Stephens—October 24

Anniversaries

Wayne Boesiger



Happy Dollars



Al Burdick	\$2.00
Steve Grosserode	\$2.00
Charles Erickson	\$1.00
Gloria Collingsworth	\$2.00
Greg Schnasse	\$1.00
Blake Collingsworth	\$3.00
Dick Cumming	\$1.00
Ozzie Gilbertson	\$2.00
Barry Stelk	\$5.00
Wayne Casper	\$4.00



CASHIER
TABLE



Cashier Duty

October—John Garrison

We need volunteers for the following:

Month of November

Please let Dick Cumming know when you plan to volunteer

Make Ups

Chris Klingenberg
David Miller
Dean Douglas
Duane Tappe

Concession F.B.
Younkers
Trail Clean-up
Dictionary Project



Greeter Duty

October Paul Horton
November Gene Roth
December Dean Douglas
January Greg Schnasse

Guests & Visitors

Pat Grosserode
Kayla Finck
Jeff Stoehr
Alan Holdorf

Steve Grosserode
U.S. Bank
Lincoln South East
Teacher— Month

Lincoln East Rotary Club November Speaker Schedule

November 1—David Smith : One Book One Lincoln

November 8—District Governor, Tom Cardwell

November 15—Will Cover, program director of the Cornhusker Boy Scout Council

NO MEETING—November 22

November 29—Charles Erickson—Zambia Update

*Lincoln East Rotary Club
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Published by Wayne Casper*