Dear Extension Friends,

We hope you are enjoying the last bit of summer vacation before the new 4-H and school year. Please check out the horticulture section on page 2 for information on what to plant during the August heat. The 4-H section has details about all of the fun and learning that our Baker County youth experienced during summer camps. And the Agriculture section is expanded to pages 3 and 7 this month to cover diseases that can be spread from poultry to humans. This is especially important since Florida is part of a multi-state outbreak of Salmonella linked to live poultry. Thank you for your continued support of your local Extension Office. As always, if we can help you in any way, please do not hesitate to contact us.

Sincerely,

Michael A. Davis
Director / Agriculture Agent
UF/IFAS Extension Baker County

Contact Information—Baker County Extension Service

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Species Spotlight: 
Firefly Firebush

‘Firefly’ is a cultivar of the Florida native Firebush, *Hamelia patens*. This plant is a compact form of the species with leaves and flowers about half the normal size. Orange-red tubular flowers cover the plant most of the year, and are followed by black berries and foliage that turns a bronze-orange color in fall. This soft-stemmed shrub makes a nice specimen or accent, and attracts butterflies and hummingbirds to the landscape.

Although labeled for cold hardiness zones 9-11, it has proven to be root hardy in the Baker County Extension Office’s butterfly garden (Baker County is zone 8b which is slightly colder than zone 9). For many years, this plant has returned in spring, quickly growing from the roots to reach 3-5 feet and is covered with blooms from summer to fall. The plant is moderately drought tolerant and will tolerate occasionally wet soils.

Firebush flowers best in full sun, and will have a fuller canopy than when grown in shade. Fertilize sparingly and mulch the root zone to keep out competing grass and weeds. It can take heat and drought, but may require supplemental irrigation from time to time. This native shrub is quite tender in the colder regions of North Florida and should be planted it in a slightly protected location and/or kept mulched in an effort to keep the roots warmer during winter. Generally speaking, Firebush makes a nice addition to the landscape, attracting wildlife to the garden and requiring little maintenance.

For more landscaping ideas, visit the Baker County Extension butterfly garden to see this plant and many others that perform well.
**AVIAN DISEASES TRANSMISSIBLE TO HUMANS**

Although many diseases that are associated with poultry only affect avian species, there are some diseases that can affect both birds and humans. While it is extremely unlikely that you will become infected with one of these diseases from your backyard flock, you should be aware in the event that medical attention is needed. In most cases, following good management practices, providing proper sanitation, and a good dose of common sense will keep you and your birds healthy.

The technical term for an animal disease that can be spread to humans is zoonosis. Infectious agents of these diseases can be bacterial, fungal, protozoal, or viral. Seriousness of these diseases in humans is variable depending on age, prior health status, current immune status, virulence of the organism, dose level, and the type of therapy (if any) that is used. Generally, those persons that are very young, very old, or are in some way immunocompromised are at the greatest risk for acquiring disease. Please note that this list below is not all-encompassing, but it does cover the main diseases that have potential to move between avian species and humans.

**AVIAN INFLUENZA** - Avian influenza receives a lot of attention in the media because of its virulence in birds. To date, there have only been two incidences of Avian Influenza infection in the United States, with both of these occurring in the early 2000s ([CDC, 2016](http://www.cdc.gov/flu/avianflu/outbreaks.htm)). Most cases of human contracted Avian Influenza have occurred where people and birds share very close quarters and humans were exposed to infected bird secretions. Other notes of interest for Avian Influenza include:

- Even though the virus has been isolated from hatching eggs, there is no evidence that birds hatch out with the disease, as the embryo dies while still in the egg.
- Poultry that originate from areas of the world where the virus is common are not allowed to enter the United States legally.
- All commercial poultry that enter Florida from other states are required to have an entry permit and be certified to come from influenza-free flocks.

**SALMONELLA spp. and ESCHERICHIA COLI**—Both of these bacterial pathogens belong to the family *Enterobacteriaceae*. While *Salmonella* typically receives more attention as being associated with poultry, both types of bacteria are associated with and can be acquired from poultry.

*Salmonella* bacteria are widespread in the environment and are associated with many animals, including: birds, reptiles, mammals, and amphibians. Reported outbreaks of salmonellosis have been associated with handling of chicks, ducklings, and other poultry species. Since the bacteria typically resides within the intestinal tract of the animals, particularly in the feces, care should be taken to avoid contact with the feces. Washing hands with soap and water after handling animals is always a good practice.

*Escherichia coli* can also be found in the intestinal tract of many animals, including humans. The primary routes of infection with this bacteria are direct fecal contamination or consumption of food or water that has been contaminated by feces. Most strains of *E. coli* are not considered to be pathogenic. However, there are some strains that can cause severe illness, including *E. coli* O157:H7.

continued on page 7

1—http://www.cdc.gov/flu/avianflu/outbreaks.htm
August 2016

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Upcoming Programs are marked with a Program Area Symbol. Please match these symbols with the list on the following page for more information about the program.
Upcoming Programs & Events

Programs will be held at the Baker County Extension Office (Agricultural Center) unless otherwise noted.

Aug. 11  **Peanut Field Day**, 8:00am(CDT) to 2:00pm(CDT), UF/IFAS North Florida Research and Education Center, 3925 Highway 71, Marianna, FL 32446. Topics to be addressed include: 1) disease control, 2) new varieties, 3) crop management, and 4) weed control. CEUs for those holding a Restricted Pesticide License will be available. For additional information and registration information, please contact NFREC at (850) 526-1611 or visit http://nwdistrict.ifas.ufl.edu/phag/2016/07/08/peanut-field-day-ceus-offered/. Please note that times for this event are Central Daylight Time.

Aug. 18  **Small Farm Poultry Production**, 5:30pm to 7:30pm, UF/IFAS Extension St. Johns County, 3125 Agricultural Center Drive, St. Augustine, FL 32092. Information will be presented on topics including: 1) Florida Poultry Regulations, 2) Breed Selection, and 3) Basic Poultry Management. Registration is due by August 16, 2016. To register or for additional information, please contact the UF/IFAS Extension St. Johns County Office at 904-209-0430 or by visiting http://stjohns.ifas.ufl.edu/.

Aug. 26  **Raised Bed Vegetable Gardening**, 3:00pm to 4:00pm, UF/IFAS Extension Baker County, 1025 W. Macclenny Ave, Macclenny, FL. Learn the basics for growing vegetables in raised beds plus get fall vegetable gardening tips for success and receive a vegetable seed variety pack that includes broccoli, cabbage, carrots, kale, lettuce, and radish. $5 registration due by August 24th; call (904) 259-3520 for more information.

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4-H Club Meetings

**Baker Creation Explorers**—No meetings during summer months.

**Cloverleaf Cloggers**—Every Monday at 7pm in the Auditorium.

**Livestock Club**—Contact your club leader for summer club meeting dates.

*See page 6 for more upcoming 4-H events*

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High school aged youth that need community service hours can volunteer at the Extension Office!
Upcoming 4-H Events

August
01– Cloverpoints and 4-H Yr Record Books (for awards) DUE
12– 4-H Awards Program 6:30pm RSVP by August 8th!
13-28– Mrs. Shaina on VACATION please get with her BEFORE she leaves. She will absolutely not be available via email, cell phone, or Facebook while on vacation. Contact the office (904-259-3520) or your club leader if you have questions during this time.
September
06– Cloverpoints and Animal Project Books (for fair) DUE
13– 4-H Kick-Off 6pm (Date & Time updated)
30– Baker County Fair Starts

The Summer is Over!

Our wonderful summer has come to an end! This year was full of awesome and exciting things!! We went to Camp Cherry Lake, had Buggin’ Out with 4-H, Dancing with the Clovers, Peanut Butter and Jelly Camp, and Kitchen Chemistry!!

Since our last newsletter we have had Dancing with the Clovers, Peanut Butter and Jelly Camp, and Kitchen Chemistry. Here is a look at what we did!

Dancing with the Clovers:

Peanut Butter and Jelly:

Birthdays for August:
Wishing you all a Happy Birthday!

10– Jayden Wilburn 01– Noah Underwood
14– Raelyn Frailey-Harris 01– Kerrigan Pelfrey
14– Breanna Taylor 02– Brenna Hilson
14– Khale Harris 09– Jessie Cruce
22– Gabriel McDonald 09– Robbie Hill
22– Pearl Wilburn 09– Nathan Crawford
26– Boomer Davis
Typical signs and symptoms of *Salmonella* or *E. coli* infection include: diarrhea, vomiting, fever, and abdominal cramps. The very young, elderly, and those with compromised immune systems are more likely to develop severe symptoms from infection. The following tips will help to reduce the risk of infection by these bacteria:

- Avoid contact with the feces of animals unless you are wearing the proper protective gear.
- Anyone who handles birds of any age should wash their hands thoroughly afterwards. If soap and water are not available, use alcohol-based wipes or hand sanitizer.
- Do not allow children to nuzzle or kiss poultry of any age and make sure they wash their hands thoroughly.

Please note that as of this writing there is a large ongoing multi-state outbreak of human *Salmonella* infections linked to live poultry and backyard flocks. Additional information can be found at [http://edis.ifas.ufl.edu/in631](http://edis.ifas.ufl.edu/in631) and [http://www.cdc.gov/salmonella/live-poultry-05-16/index.html](http://www.cdc.gov/salmonella/live-poultry-05-16/index.html).

**ENCEPHALITIS VIRUSES**—Encephalitis is defined as inflammation of the brain caused by infection or allergic reaction. There are types of encephalitic diseases caused by viruses, such as Eastern Equine Encephalitis, St. Louis Encephalitis, and West Nile, that can also be isolated from bird populations. Birds will become infected with these viruses after being bitten by a mosquito that is carrying the virus. Humans are infected in the same manner and not via person-to-person contact or from the consumption of meat or eggs.

Because of the nature of Florida’s climate, mosquitoes can be an almost year-round problem and anyone bitten by a carrier mosquito could become sick. The reality is that only a very few people become sick each year. The Florida Department of Health and many other mosquito control districts around the state actually use adult chickens to monitor for these viruses in their areas of operation; These “Sentinel Chickens” are housed in coops that are very similar to coops that can be used by owners of backyard flocks. Chickens that are bitten by a carrier mosquito do not develop the disease, but they do produce antibodies to the virus. By testing the level of antibodies in the blood of the chickens, health officials can determine the presence and/or level of the virus in an area.

**NEWCASTLE DISEASE**—Newcastle Disease is a serious respiratory ailment in poultry caused by a paramyxovirus. In poultry, Newcastle Disease is highly contagious between birds and mortality can reach 100%. This paramyxovirus can also infect humans, although the presentation of symptoms is very different. In humans, the disease causes a localized infection in the eye called conjunctivitis, which is commonly referred to as “pink-eye”. The infection tends to last 5 to 10 days and resolves completely. There are topical eye drops and ointments available to reduce discomfort and inflammation and also to decrease the risk of secondary bacterial infections.

The main groups that should be concerned about contracting this disease from poultry are:

- Persons administering live-virus vaccinations for Newcastle Disease to birds.
- Individuals performing post-mortem examinations of actively infected birds.
- Individuals that work in a lab setting for isolation and concentration of the virus.

Most individuals that handle poultry or have a backyard flock should not have a concern about contracting this virus from their birds. Reputable breeders will vaccinate chicks before their sale as production animals.

Additional information about these diseases can be found at the Centers for Disease Control and Prevention ([http://www.cdc.gov/](http://www.cdc.gov/)) website or by visiting the UF/IFAS Extension EDIS Database ([http://edis.ifas.ufl.edu/](http://edis.ifas.ufl.edu/)).
Extension programs are open to all people regardless of race, color, age, sex, handicap, or national origin. In accordance with the Americans with Disabilities Act, any person needing a special accommodation to participate in any activity, should contact the Baker County Cooperative Extension Service at 1025 West Macclenny Avenue, Macclenny, FL 32063 or telephone (904) 259-3520 no later than five (5) days prior to the event. Hearing impaired persons can access the foregoing telephone by contacting the Florida Relay Service at 1-800-955-8770 (voice) or 1-800-955-8771 (TDD).

The annual UF/IFAS Peanut Field Day will be held at the Marianna North Florida Research and Education Center on Thursday, August 11, 2016. Registration will begin at 8:00am CDT and the program will end with a sponsored lunch. Field tours will begin at 8:30am CDT. Topics to be addressed include disease control, new varieties, crop management, and weed control.

CEUs (including CORE) will be available at registration. For additional information contact NFREC at (850) 526-1611 or visit http://nwdistrict.ifas.ufl.edu/phag/2016/07/08/peanut-field-day-ceus-offered/