

VTPB Tracks!

**Texas A&M University
Department of Veterinary Pathobiology**

Special points of interest:

- > Visiting Iraqi Faculty
- > New Department Members
- > Departed Department Members
- > Dr. Garry Adams' Lifetime Achievement Award
- > Ken's Corner with Fall Recipes!

Message from the Department Head

Hello Folks:

Fall is in full swing. Who could ask for nicer weather than we are having! I would like to welcome all our new graduate students and residents to our department. Congratulations to those of you who received recent awards and scholarships, we are really proud of you! I was extremely proud to see the financial success of our research program highlighted in the CVM annual report. I was disappointed to miss Jan Elliot's retirement party, from the photos it looked like a blast.

As you can see from the African photos, I have been off in one of my most favorite parts of the world on a trip with Dr. Derr to set up a new study abroad pro-

gram for our veterinary students. As you may recall, I also serve as the CVM Director of International Programs, a new responsibility I have had for one year. We are targeting expanding and developing new study abroad programs for our BIMS and veterinary students. The new South Africa program we plan for 2013 summer will offer veterinary students a wonderful opportunity for first-hand experience dealing with health issues and translocation of African wildlife. At the rate of poaching of African elephants and rhinocerci for their tusks and horns respectfully, these animals will very likely become extremely rare if not extinct in the wild. This is a great shame for future generations not to be

able to appreciate and visit these magnificent beasts in their natural habitat. I hope we can help to do more toward conservation of African wildlife. Dr. Derr's African Wildlife Conservation program is a unique program for Genomics and Genetics and Health and this trip allowed me to become more familiar with the goals of this research program.

All of our fall courses have gotten off to a great start and we are almost halfway through the semester! Please reserve October 31st, Halloween, for our annual departmental costume party. There will be prizes and lots of good food and laughter so mark your calendars to join your colleagues for the fun! I promise to try to outdo my "Cruella De Ville" costume from last year!

Thank You for your Service!

Roberta Pugh—40 years

Sharon Dickerson—10 years

Frances Hicks—30 years

Rosa Gonzalez—30 years

Diane McCleary—20 years

Be sure to identify the Texas wildlife tracks in the back of the newsletter for a prize!

Congratulations Residents!

Dharani Ajithdoss—passed the boards and is now a Diplomate of the American College of Veterinary Pathology (Anatomic)

Jessica Hokamp—passed the boards and is now a Diplomate of the American College of Veterinary Pathology (Clinical)

Derick Whitley—passed the boards and is now a Diplomate of the American College of Veterinary Pathobiology (Anatomic)

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Faculty Corner - Lifetime Achievement Award

Garry Adams, received the American Veterinary Medical Association Lifetime of Excellence in Research Award during the organization's annual convention on Aug. 7 in San Diego. The award is based on the lifetime achievements of Dr. Adams in research, and the impact of his career on the veterinary and biomedical profession.

"This award is certainly a humbling honor," Dr. Adams said. "For me, this profession has offered unlimited opportunity to really invest and discover all new approaches to old problems. It is really the profession that I am indebted to for my career."

Dr. Adams' career began 44 years ago when he became an assistant professor with the Department of Veterinary Pathobiology at Texas A&M. Upon completion of his residency and Doctor of Philosophy in Veterinary Pathology, Dr. Adams led the Rockefeller Foundation and USAID sponsored research team in Columbia, South America, developing diagnostic assays and vaccines for bovine anaplasmosis, babesiosis, and trypanosomiasis. Dr. Adams returned to Texas A&M to teach pathology and continue his infectious disease research as a professor, then serving as associate dean for research in the College of Veterinary Medicine & Biomedical Sciences.

For more than 30 years the research findings of his team have been implemented to improve the scientific basis of two of the largest animal health regulatory programs in the United States: brucellosis and tuberculosis. His research emphasis is the host-pathogen interface, genetic basis of natural disease resistance, molecular pathogenesis of intracellular bacterial pathogens, and the development of vaccines and diagnostic tests against zoonotic diseases. Dr. Adams' most recent role is leading the development and implementation of biodefense and emerging disease research initiatives.

"The most important accomplishment for my career is the legacy that I will leave behind through my students. They will go on to solve problems of the future and take up scientific issues important to both animal and human health issues. The undergraduates, graduates, veterinary students, residents, and post-doctoral fellows reflect the work of all who have conducted research with me."



Dr. Garry Adams and his family



Dr. Adams' Lab Celebration



Dr. and Mrs. Adams at AVMA/AVMF in San Diego, CA—2012

Faculty Congratulations

Garry Adams, on his appointment as a member of the Board of Directors of the American Veterinary Medical Foundation.

Blanca Lupiani on her promotion to Professor, September 1, 2012. Dr. Lupiani has developed and maintained an outstanding research program in the area of vaccines, mechanism of disease and the epidemiology of avian influenza in migratory water fowl. Her research has also had significant impact on the fields of Marek's disease. She has continually published in high impact journals.

Karen Russell on her promotion to Professor, September 1, 2012. Dr. Russell has built a highly successful clinical pathology residency program which is recognized both nationally and internationally. She has demonstrated excellence in classroom teaching and mentoring of veterinary residents

Sara Lawhon and Shuping Zhang received notification that the FDA has accepted the clinical microbiology laboratory as a first tier laboratory in the Vet-LRN Network.

James Womack was featured in the Bryan Daily Eagle July 14, 2012, "Over the past three years Jim Womack, a Texas A&M Distinguished Professor of Veterinary Pathobiology visited the Seoul National University in Korea for four-month stints to direct the graduate research into chickens' NK-lysin. The results of a scientific study of 62 White Leghorn and 53 Cornish chickens revealed that NK-lysin, a bacteria-killing peptide found in animals' innate immune systems can also kill cancer."

Student Congratulations!

Ryan Doan, PhD student of Scott Dindot and **Colleen Fisher**, MS-thesis student of Chris Seabury, were the recipients of a 2012 Outstanding Graduate Student Scholarship from the College of Veterinary Medicine. Congratulations Ryan and Colleen on your achievement!

Staff Awards

Cynthia Voelker received a 2012 College of Veterinary Medicine Staff Award on July 27. Her nomination letter stated, “Ms. Voelker consistently demonstrates outstanding performance as well as a positive attitude in spite of numerous last minute schedule changes, student crises, or staffing emergencies. In the last 8.5 yrs. that Cindy has been in this position she has been assistant to 3 permanent and 2 interim department heads. “Leadership” took on new meaning with all these transitions.”

Patty Vychopen, was chosen for the fall season’s Safety Sound Off from Texas A&M University Environmental Health & Safety office. She was chosen for being proactive in assisting employees in VTPB with shipping biological specimens, making sure they are complying with hazardous materials regulations and directing them to train-



Cindy (center) with Dr. Logan (left) and Dean Green (right)

FACULTY FUNDING

James Derr, “Genetic Analyses of Yellowstone Bison,” Cooperative Agreement between Gulf Coast Cooperative Ecosystem Studies Unit and Department of the Interior, National Park Service, Yellowstone National Park.

Scott Dindot, “Improving Fertility of Dairy Cattle Using Translational Genomics,” collaborator on a USDA CAP grant recently awarded to Tom Spencer at Washington State. “Systems Biology Approach to Understanding Endometrial Receptivity and Pregnancy Loss,” NIH USDA Dual purpose award. His contribution is to help with the genomics aspect of the grants.

Thomas Ficht, Paul de Figueiredo and Arum Han, (Electrical Engineering and Computer Engineering), “Develop a Microfluidic Lab-on-a-chip System that Enables Ultra-high-throughput Analysis of Interactions between Biothreat Agents and Environmental Microbes,” from the Defense Threat Reduction Agency.



Welcome to Visiting Iraqi Faculty!

Through the Borlaug Institute and the **USDA Faculty Exchange Program with Iraq**, we have four Iraqi veterinary professors from 4 different veterinary schools visiting the CVM from August 12 – December 12. The purpose of this program, is to allow these faculty to gain insight into how we deliver veterinary education in the United States. They have each been assigned a primary mentor based on their expressed interest in teaching. Through this program, they will prepare a course design, write two course syllabi, and prepare a seminar presentation to USDA/FAS regarding their visit and outcomes.

Dr. Muneer Salim Taha (Dr. Muneer) serves as Assistant Dean and full professor of Veterinary Surgery at Mosul University. He currently teaches 4th and 5th year veterinary surgery and vet clinic. He is interested in surgical techniques, specifically on dogs, but also for farm animals and pets and in learning techniques in anesthesia. Two courses he would like to improve are Veterinary Surgery and Veterinary Anesthesia (small animal surgery, soft tissue surgery). Dr. Muneer also aspires to become Dean someday and would like to include administrative training during his fourth month here.

His assigned mentors is:
Dr. Nora Matthews

Dr. Isam Mohammed Jaber Kadim (Dr. Zabeeba) is a lecturer in Embryology at the University of Babylon. His research interests are recombinant DNA technology, functional genomics, transgenesis and advanced biomedical research. He would like to focus on Intracytoplasmic Sperm Injection (ICSI) and pre-implantation genetic diagnosis (PGD). Courses he would like to work on are Molecular Biology and Reproductive Physiology. His assigned mentors are: **Dr. Randy Stewart and Dr. Jan Janecka.**

Dr. Ali Abbood Eesa Ideani (Dr. Ali) is a lecturer of Microbiology, Immunology and Public Health at the University of Basrah. He is interested in purification of IgY and the effect of plant extract on antibiotic-resistant bacteria. He is interested in learning about sequencing and PCR procedures. The courses he would like to work on are Molecular Biology and Reproductive Physiology. His assigned mentors are: **Dr. Jeffrey**

Musser and Dr. Tawfik Omran

Dr. Saleem Amin Saleem Hasso (Dr. Saleem) is a full professor in Microbiology at the University of Baghdad. He currently teaches microbiology, but was the Head of Medicine from 2007-2011. His research interests are Mycoplasma and viruses. He would like to focus on PCR and real-time PCR. The courses he would like to develop are in Clinical Medicine: Cardiology and Dermatology. His assigned mentor is **Dr. John August.**

New Department Members!

James Kusmierczyk, Veterinary Intern Instructor, working in the Schubot lab.

Shelley Landers: Office Associate in the Surgical Pathology and Dermatopathology Lab. Shelley transferred from the Veterinary Medical Teaching Hospital.

Aseem Pandey, Postdoctoral Research Associate in Thomas Ficht's lab.

New Residents!

Julie Hilligas, Clinical Pathology, received her DVM from the University of Florida in 2012.

Amie Perry, Anatomic Pathology, will receive her DVM degree from Auburn University in 2012.

Devon K. Klipsic, Comparative Medicine, received her DVM from the University of Wisconsin-Madison in 2008.

Kimberly Wahl, Anatomic Pathology, received her DVM from Washington State University in 2011



Departing Department Members

Wayne Corapi says it's his turn to support his wife while she finishes up her PhD degree. They have relocated to Arizona where Dr. Corapi found a position teaching school.

Jan Elliott, retired after 47 years of service in the College of Veterinary Medicine, Texas A&M University. A reception was held and stories were told about her work experiences and her impact on many, especially graduate students who lovingly called her, "Mom." When asked what her plans are she said, "international travel with family, camping, resuming mountain biking, bicycle road trip tours, spending more time at my cabin in Missouri, vegetable gardening, sewing and that's just the tip of the iceberg."

Amanda Engram, Technician in Clinical Microbiology, was accepted into graduate school in Architecture.

Amanda Fisher, Assistant Lecturer, completed her residency.

Margarete Patton, Technical Assistant, working retiree, decided to truly "retire."



Jan Elliot's Retirement Party



Congratulations Jan!



July

Michael Criscitiello,

Fukuoka, Japan
"Fundamental plasticity in B and T lymphocyte immunogenetics in shark," at the 12th International Congress of the International Society of Developmental and Comparative Immunology.

James Derr,

Quebec, Canada
"Mitochondrial Genomics of American Bison: Evolution, Diversity, Integrity and Phenotypes," at the International Bison Conference.

Lauren Dobson,

Quebec, Canada
"Progress on Bison Genome Sequencing: A First Year Report," at the International Bison Conference.

Blanca Lupiani,

Berlin, Germany
"Insertion of Reticuloendotheliosis Virus (REV) Long Terminal Repeat (LTR) in the Genome of CV1988 Strain of Marek's Disease Virus Results in Enhanced Growth and Protection," at the 9th International Meeting on Marek's Disease and Avian Herpesviruses.

Sanjay Reddy,

Berlin, Germany
"Cloning of a Very Virulent Plus, 686 Strain of Marek's Disease Virus as a Bacterial Artificial Chromosome;" chaired 2 sessions, "Virus Structure & Assembly;" and "Vaccines;" at the 9th International Meeting on Marek's Disease and Avian Herpesviruses.

August

Garry Adams,

Buenos Aires, Argentina
Collaborated with colleagues, Drs. Carlos Rossetti, Luis Samartino & Jorge Carrillo, of the Instituto de Patobiología, Centro de Investigaciones en Ciencias Veterinarias y Agronómicas (CICVyA) of the Instituto Nacional de Tecnología Agropecuaria (INTA)-Castellar,

VTPB Around the World!

Buenos Aires to develop a 5 year research plan for the development of genetic disease resistance and vaccines against caprine brucellosis in Northern Argentina, on Aug. 18-31 which was sponsored by the TAMU CVMBS Faculty International Travel Application for Funds to Support New International Program Development.

Gloria Conover,

Bucaramanga, Santander, and Cali, Colombia
Create an internship student exchange program with Texas A&M University, the Universidad Industrial de Santander and ICESI University.

Michael Criscitiello –

Hermosillo, Mexico
Presented "Immunogenomics of white-leg shrimp" at the Mini-Simposio Moleculas Biomimeticas Acuatico, and met with Mexican fisheries officials.

Linda Logan and James

Derr – Mpumalanga, South Africa
Accompanied 12 Ross students participating in a new Study Abroad Program.

From emails from **Dr. Logan:**
"Today we had a little fun and actually visited an Elephant whisperer facility and we rode on the backs of African Elephants. Few people have been on African elephants. Most of the domesticated elephants are African. Tomorrow we have to have breakfast at 4:30 am and we

will be doing translocation of 48 cape buffalo.....the most dangerous African animal.....In store this week is translocation of Rhinos about 16 giraffe and some lions as well. I hope we all survive the week. We have had an amazing week with darting a rhino and a couple of wild beasts. Today we had the snake lecture and the guy brought a green mamba and a puff adder and an African tree snake all of which are some of the most venomous snakes in Africa. Oh also a cobra.... He took them out and showed them to us holding them or putting them on the ground. There are 12 Ross students in the course. We had two lectures this morning and this afternoon we will bleed crocodiles. We will feed an orphan baby rhino now."

Jeffrey Musser – Kigali, Rwanda

Help develop a Strategic Agricultural Plan for the Government of Rwanda.

George Stoica, Bucharest, Transylvania, Romania.

Invited presentation, "New Therapeutic Approaches in Neurodegenerative Disorders," at the Clinical and Pre-Clinical Debates in Neurological Disorders organized by KRKA Romania SRL and The Ministry of Health from Romania, and "Glioblastoma in Dog Species as an Animal Model for Human Counterpart," at the Bucharest Institute of Oncology. Dr. Stoica received an invitation from the Veterinary Diagnostic of Brasov, Transylvania "Forty Years Anniversary Celebration", where he used to work as a pathologist between 1968-1970. His speech was "One Medicine and the Contribution of Veterinarians in Biological Sciences," August 20-24.



Dr. Logan standing in front of Crocodile River in Kruger Park—South Africa



Dr. Derr with Black Rhinos in South Africa

VTPB Around the World!

September

Donald Brightsmith, Rio, Sao Paulo, Pantanal, Brazil
 Led a parrot education trio for donor and constituent Phoenix Landing to educate parrot owners about the research conducted at the Schubot Center.

James Derr, Kasane, Botswana, South Africa
 Attended the 11th annual meeting of the African Wildlife Consultative Forum.

John Edwards – Leon, Spain
 “Orthobunyavirus Malformations: Akabane, Cache Valley and Schmallenberg Viruses: Not New, Just a Change in Venue,” Plenary Session Presentation;
 “Toxoplasmosis: Does recrudescence occur in a flock in breeding sessions after an outbreak,” Platform Presentation at the 30th Annual Meeting of the European Society of Veterinary Pathology.

Gonzalo Rivera, Madrid Spain
 Invited presentation, “Coordination of Critical Cytoskeletal Changes by Nck Enables Endothelial Cell Polarization and Morphogenesis,” at the Spanish National Cancer Research Center -CNIO Frontiers Meeting; Allosteric Regulation of Cell Signaling; “Role of Cytoskeletal Dynamics in Endothelial Cell Migration and Morphogenesis,” at the Centro de Investigaciones Biologicas

(National Research Council); “Spatiotemporal Regulation of Signaling to the Cytoskeleton by Adaptor Proteins: from Actin Comets to Directional Cell Motility,” at the Universidad Complutense de Madrid.

George Stoica Rome, Italy,

September 8-12 participated in the 24th European Congress of Pathology, Prague, Czech Republic with an oral presentation entitled, “Dopamine and alpha synuclein interplay in neurodegeneration: A rat animal model”. September 13, 2012, Invited seminar “An Inherited Autosomal Recessive Rat Model for Neurodegeneration,” at the University of Rome Tor Vergata.



Ross University Veterinary Students at Kruger National Park Gate—South Africa



Ross University Vet. Students spelling “Africa”

July

Joanne Mansell, "Sterile Neutrophilic Dermatitis Associated with Malignancy in a Dog," and "Post Grooming Furunculosis," invited presentation at the World Congress of Veterinary Dermatology in Seattle, WA.

Roy Pool, "Seminar and Workshop on Musculoskeletal Disease, Oral and Dental Disease and Tumors of Domestic Animals," at the College of Veterinary Medicine, Cornell University, Ithaca, NY.

August

Garry Adams, presented a keynote panel paper entitled "Status & Overarching Aims of Companion Animal Health Research" and served on the "Panel & Table Discussion: Companion Animal Research" at the Pet Healthcare Industry Summit 2012, August 14-15, Portland, Oregon sponsored by the Banfield Pet Hospital.

Donald Brightsmith, "The Tambopata Macaw Project," and "The Schubot Center-25 years of Research and Service to the Aviculture Community," at the American Federation of Aviculture 38th Annual Convention in San Antonio, TX.

Don Davis, invited paper, "EHD Vaccines," at the Texas Deer Association Meeting, in San Antonio, Tx.

VTPB In the United States!

Scott Dindot, "Genomic imprinting of Ube3a in the brain," University of South Florida, Tampa Florida, July 31- Aug. 2; "Mechanisms regulating genomic imprinting of Ube3a," at the 15q Duplication Alliance Meeting, Boston Children's Hospital, Harvard Medical School, Boston, MA, August 8-11.

Pam Ferro, poster presentation: "Virus surveillance in wild bobwhite quail in the rolling plains of Texas, USA" at the American Association of Avian Pathologists Meeting, San Diego, CA.

Susan Payne, "Bornaviruses in North America Water Fowl," at the Association of Avian Veterinarians Conference in Louisville, KY.

Ian Tizard, Keynote Address, "The Scarlet Macaw Genome Project," at the Association of Avian Veterinarians Conference in Louisville, KY.

Guan Zhu, "CpArray15K: The First Oligonucleotide Microarray for *Cryptosporidium parvum* and its Application to Study the Transcriptome in the Parasite Oocysts," at the 12th International Workshop on Opportunistic Protists at Albert Einstein College of

Medicine in New York, NY.

The following presentations were made at the Veterinary Medical Scientist Research Training Program Conference:

Erin Binagia (Mentor, G. Adams) "Evaluating an in silico Host-pathogen Interactome Model by Challenging RNA Knocked-down Predicted Host Genes with Wild-type *Salmonella enterica* Typhimurium;"

Chase Crawford (Mentor, M. Nabity) "Investigation of Gene Expression Products using Quantitative PCR in Urine Sediment;"

Melissa Daigneault (Mentor J. Musser) "Ribavirin Toxicology Study in Chickens;"

Erin Lee (Mentor, S. Lawhon) "Regulation of Autoinducer-2 Transport in *Salmonella*;"

Suzanne Li (Mentor, A. Kier) "The Effect of a High Cholesterol Diet in Triple L-FABP, SCP-2, and SCP-X Gene Ablated Mice;"

Sherrelle Roberts (Mentor, A. Kier) "Impact of Phytanic Acid Diet on Lipid Metabolism in SCP-2, SCP-x, and L-FABP Triple Gene-ablated Mice;"

Nathan Shotts (Mentor, S. Dindot) "Investigation of Congenital Malformations in a Greater Swiss Mountain Dog using Array Comparative Genomic Hybridization;"

David Worth (Mentor, G. Adams) "Efficacy of the in silico Bovine Host: pathogen Model to Predict in vitro Mechanistic Genes of *Salmonella enterica* Typhimurium;"

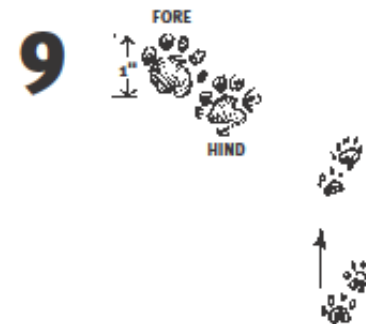
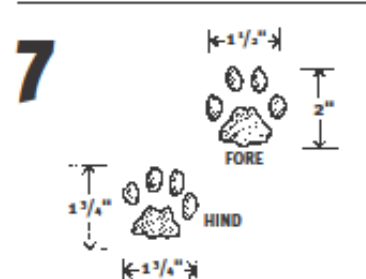
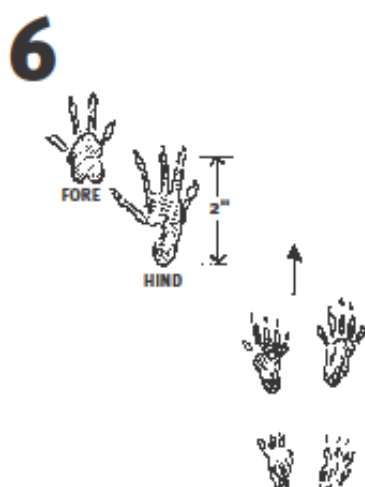
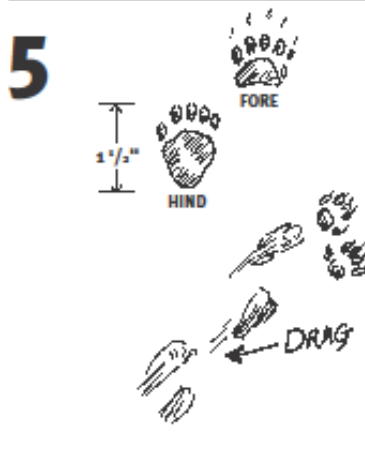
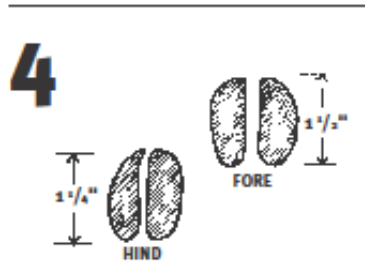
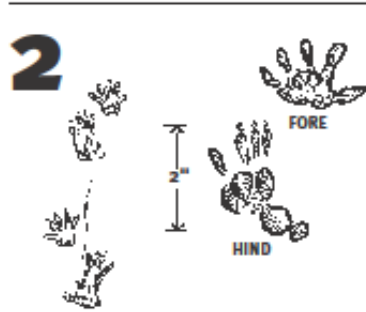
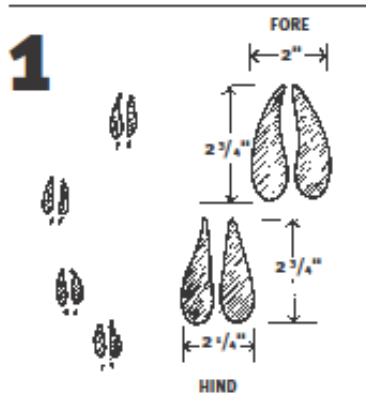
September

Garry Adams, served as a member of the National Academy of Sciences, National Research Council Standing Committee on Programs to Counter Biological Threats for the U.S. Department of Defense, in Washington, D.C.

Donald Brightsmith, "Nutrition Research at the Schubot Center" and "The Tambopata Macaw Project" at the Parrot Education & Adoption Center, Cleveland, OH.

Can you identify these tracks?

You may know Texas wildlife, but do you know their tracks? Some like the rabbit and opossum are easily recognized. Others such as the coyote, collared peccary and bobcat may be confused with their domestic look-alikes the dog, pig and house cat. Tracks are easily followed in snow or loose sand. Prints made in soft mud are best for study. (Answers at the bottom of page.)



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Send your answers to Marcia for a prize!



Ken's Corner

Fall/Holiday Recipes

PECAN PUMPKIN BREAD

This sweetly spiced harvest quick bread is flavored with cinnamon and nutmeg.

- 2½ cups all purpose flour
- 1 cup whole wheat flour
- 3 cups sugar
- 2 teaspoons baking soda
- 1½ teaspoons salt
- 2 teaspoons cinnamon
- 1 teaspoon nutmeg
- 1 cup oil
- ⅔ cup water
- 4 eggs
- 1 (16-oz.) can pumpkin (2 cups)
- 1 cup chopped pecans

Heat oven to 350°F. Grease bottom only of two 9x5-inch loaf pans or three 8x4-inch loaf pans. In large bowl, combine all purpose flour, whole wheat flour, sugar, baking soda, salt, cinnamon and nutmeg; mix well. In medium bowl, combine oil, water, eggs and pumpkin; blend well. Add to flour mixture; beat 1 minute at medium speed. Fold in pecans. Pour batter into greased pans.

Bake at 350°F. for 60 to 70 minutes or until toothpick inserted in center comes out clean. Cool 10 minutes; remove from pans. Cool completely.

Yield: 2 (16-slice) loaves.

HIGH ALTITUDE:

Above 3500 Feet: No change.

NUTRITION PER SERVING:

Calories 230; Protein 3g; Carbohydrate 31g; Fat 10g; Sodium 180mg.

PINEAPPLE PECAN QUICK BREAD

Lemon and pineapple flavor this cake-like bread. It's a great choice for breakfast, brunch or dessert.

- BREAD**
- 2 cups sugar
- 1 cup margarine or butter, softened
- 4 eggs
- 3 cups all purpose flour
- ½ teaspoon baking powder
- ½ teaspoon baking soda
- ½ teaspoon salt
- 1 cup buttermilk
- 1 to 2 tablespoons grated lemon peel
- ½ teaspoon lemon or pineapple extract
- ½ cup chopped pecans
- 1 (20-oz.) can crushed pineapple, drained, reserving liquid

GLAZE

- ½ cup sugar
- 3 tablespoons reserved pineapple liquid
- ½ teaspoon vanilla

Heat oven to 350°F. Grease and flour bottom only of two 8x4 or two 9x5-inch loaf pans. In large bowl, beat sugar and margarine until light and fluffy. Add eggs 1 at a time, beating well after each addition. Add flour, baking powder, baking soda, salt, buttermilk, lemon peel and lemon extract; mix until smooth. Stir in pecans and pineapple. Pour into greased and floured pans.

Bake at 350°F. for 50 to 65 minutes or until toothpick inserted in center comes out clean. In small bowl, blend all glaze ingredients until smooth; spoon over warm loaves. Cool 10 minutes; remove from pans. Cool completely. Wrap tightly and store in refrigerator.

Yield: 2 (16-slice) loaves.

HIGH ALTITUDE:

Above 3500 Feet: Increase flour to 3 cups plus 3 tablespoons. Bake as directed above.

NUTRITION PER SERVING:

Calories 200; Protein 3g; Carbohydrate 29g; Fat 8g; Sodium 145mg.