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CC: sfspurlin@tamu.edu; RVAvant.EXTERNAL.Internet; ahelms@dsmail.tamu.edu; R...
Date: 6/16/2009 12:04 PM
Subject: Sorghum Checkoff Update

All,

This morning, Texas AgriLife Research, the OTC and the National Sorghum Producers had a conference call to discuss the USCP agreement and Intellectual Property issues associated with the agreement and funding. USCP informed us that you have submitted proposal(s) for funding under that program. In the discussions, we were informed of standard language regarding ownership of intellectual property in contracts for funding these proposals that is not consistent with Texas A&M University System policy. Jeff expressed that the sorghum checkoff board is aware of this conflict a. We are working with the USCP in modifying the language so that it would be acceptable to both parties. USCP has agreed to send new, joint language to OTC AgriLife with the goal that all contracts will be signed by end of June. Please know that they have to have these approved by USDA as well.

Janie Hurley has agreed to spearhead these negotiations and to help with the prosecution of the agreements - in as timely a manner that is possible. She will be working with Diane Gilliland of C&G to make this happen.

Finally, we apologize for these delays, but quite simply the proposed IP language was not acceptable and USCP Board agrees, as they have had numerous calls with other university systems as well. Hopefully, we can come to some agreement on language very quickly and get these proposal turned as soon as feasible. Once this language is in place, it should provide for much quicker, cleaner transactions in the future.

Thanks again,

Bill

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Bill F. McCutchen, Ph.D.

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Texas AgriLife Research

Strategic Plan for Peanut Breeding -- 2009 to 2014

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Strategic Plan for Texas AgriLife Peanut Breeding Program
2009 to 2014

Executive Summary

In October 2008 Dr. David Baltensperger requested that the peanut breeding team put together a Strategic Plan for the Texas AgriLife Research Peanut Breeding program to encompass the next five years and lay the groundwork for the next ten years with specific emphasis on what is to be done with the wild peanut (*Arachis*) collection presently residing at the Texas AgriLife Research and Extension Center at Stephenville. In January 2009 Dr. Bill McCutchen voiced his second to this effort with a charge to include an annual cost estimate for maintaining the wild species collection.

The Texas Peanut Breeding program has a 70 year history. It has released sixteen varieties and seven germplasm lines with higher yields, disease and nematode resistance, higher quality, and/or better uniformity. More recent advancements are utilizing molecular tools which speed up the variety development process and give us a better understanding of the plant processes which we are trying to manipulate in our effort to release improved cultivars.

Over the years we have accumulated an extensive germplasm collection of cultivated varieties and land races and one of the most complete wild peanut species collections in the world. These collections need to be maintained for use in our future variety improvement efforts.

Our objectives for breeding and germplasm maintenance encompass a broad spectrum including molecular tool development, pest resistance, better quality, more efficient use of water, higher oil content for bioenergy production, possible use as forage, study of the evolution of the peanut and the preservation of germplasm for future use.

In this plan we will give some history and background information; list the objectives of what we think the program needs to encompass for peanut breeding, showing who will do what; give our thinking on maintenance of the wild peanut (and cultivated) collection; list needs for future support, and list needs for future equipment purchases.

Strategic Plan for Peanut Breeding -- 2009 to 2014

Introduction

The peanut has been an important crop in Texas since the boll weevil destroyed the cotton crop in Central Texas in the early 1920's. In the early years yields were usually in the 500 to 600 lb/acre range. During WWII the peanut took on more importance and since the upswing of peanut butter use for children's lunches in the 1950's, peanut has been an important crop in Texas. Acreage in the state has been as high as 445,000 acres in recent years. In 2008 the peanut growers in Texas produced an average of 3,400 lbs per acre from approximately 257,000 acres or 860.2 million pounds that were sold for about $206 million. The acreage of peanut in Texas has fluctuated widely since about 1998 when the acreage shifted from Central to West Texas. In 2006 Texas had ca. 143,000 acres of peanut, in 2007 ca. 190,000. The 2009 crop is projected to be ca. 160 thousand acres. These wide swings occur, at least partially, because the West Texas farmers have more options to change with the changes in costs of production, prices for commodity, and consumer demand. That was not the case when most of the production was in Central Texas because a peanut farmer could grow peanuts, leave the land fallow, or plant grass and raise cattle, so many farmers would opt to grow peanuts, even at an anticipated margin for

very little profit. However, in 2002 when the long time government program changed from including restrictions on who could grow peanuts and how many acres or pounds they could sell under government support, and the support price was reduced to a point well below cost of production under Central Texas conditions, many long time peanut farmers simply quit. Because much of the acreage in West Texas had never grown peanut before, diseases were almost non existent and yields were very high. However, after a few crops of peanut the disease populations have built to damaging proportions and now the resistant varieties are becoming an essential part of production.

The most important constraints to production are:

1. Disease pressure. Whether in South, Central, or West Texas, improved resistance to diseases is needed to reduce the cost of production. The pathogens vary according to region of Texas (see Objectives, below), but disease resistance is important to all peanut-growing regions of the state.
2. Edible seed quality. Quality issues due to lack of maturity were partially negated with introduction of the high oleic acid trait. However, this is a two-gene recessive trait that needs be selected in all crosses. Also, in West Texas the shorter growing season and cooler nights result in runner cultivars developed for South Texas being immature in West Texas. Combined with hot fall daytime temperatures, this can result in off-flavors.
3. Abiotic stress tolerance. This is important for West and South Texas, where declines in the Ogallala and Edwards aquifers have made continued irrigation at current rates impossible to sustain in the future.. Cold tolerance could also effectively extend the growing season, improving maturity of the crop.

The Texas Peanut Breeding program began in 1939 and has released a total of 16 cultivars into the seed certification system of the state. Higher yield has always been a major objective of the program but pest resistance and better quality have become a significant part of the program as has, more recently, early maturity and better utilization of moisture by the plants, more commonly known as drought tolerance. Yields have improved from the 500 lbs/acre in the 1920's to as high as 8,000 lbs/acre in some West Texas fields now. Breeding can account for an estimated 30 to 35 % of that increase. Traditional peanut breeding has assumed 12 to 14 years from first cross to release of a new cultivar but with winter nurseries, molecular markers, DNA technologies, and significant financial support, 8 to 9 years is more the norm now for releasing a new variety. The molecular techniques are also providing us valuable information about gene action and understanding of the more intricate plant functions that help in making decisions in selection of appropriate materials from each cross.

Because improvements in plant breeding depend upon variability within the parents being used, a significant effort began in 1976 with the initiation of a germplasm collection program that was designed to cover the primary, secondary, and tertiary centers of peanut origin and evolution (diversity) in South America. One of the most complete collections of wild peanut germplasm is housed at the Texas AgriLife Research and Extension Center at Stephenville. This collection holds a genetic potential that has just been touched, with five very important resistance traits being tapped so far; hundreds more exist.

Background information

The history of the peanut breeding program began in 1939 with the opening of the West Cross Timbers Experiment Station at Stephenville and the agronomist (Mr. B.C. Langley) became a self-taught peanut breeder. The program was expanded in 1967 when a PhD plant breeder was hired (Dr. Charles Simpson) to assume the duties of the program at Stephenville.

Again in 1970 the program was expanded further when a PhD plant breeder (Dr. Olin Smith)was hired in the Soil & Crop Sciences Department at College Station to teach ¼ time and do peanut breeding research ¾ time. During the next 28 years seven new varieties and six germplasm lines were released by this team and Simpson accumulated the wild peanut collection at Stephenville from 20 collection expeditions to South America. The Smith/Simpson team remained the status until 1999 when Dr. Smith passed away. At that time Simpson assumed duties of both programs with significant help from Mr. Michael R. Baring, Dr. Smith's field technician, who was promoted to Research Associate to match his added responsibilities.

From 1997 to 2001 West Texas, because of a drastic acreage shift, became the leading area of peanut production in Texas with more than 80% of the Texas Crop grown there. In 2001 the decision was made to move Dr. Smith's position to the Lubbock REC and a molecular breeder, Dr. Mark Burow, was hired to fill that position of ¾ time Peanut Breeder and ¼ time teaching in the Plant and Soil Science Department at Texas Tech University. In 2003 Dr. Simpson retired, but chose to stay on at minimal pay to continue his peanut germplasm and breeding activities. In 2007 Michael Baring completed his MS degree and was promoted to Assistant Research Scientist which allows him to assume the duties of a full time project leader. In 2008 Dr. Burow was promoted to Associate Professor.

The maturation of the Texas Peanut Breeding program became evident in 1996 when the new cultivar Tamrun 96 was released. This variety was very popular and became widely adopted by our Texas growers. The pest resistance and quality improvement traits and their combination that we were working with at that time brought about a flurry of releases to the extent that we released eight new cultivars in the following ten years. The Texas peanut breeding program has played a key role in converting the Texas-Oklahoma crop to a high oleic acid content peanut. The high oleic acid trait increases shelf life which helps the peanut retain a fresh flavor much longer after roasting. The high oleic trait also improves the nutritional benefits from eating peanut and peanut product in that it makes products eaten even more "heart healthy."

The Texas Peanut Breeding Program has released 16 cultivars since the Peanut Seed Certification System was established in 1950 with the release of 'Spantex' by B.C. Langley, Agronomist/Breeder at Stephenville. Mr. Langley released the 'Starr' cultivar in 1961 and this variety became the most widely grown peanut in the United States, occupying approximately 67 % of the US acreage in 1967. Florunner, released in 1969 from the University of Florida is the only variety that has exceeded that percentage (in ca. 1984). Fourteen additional cultivars have been released from the Texas program since 1962, most of which have been released as disease or nematode resistant lines, but one was released for its uniformity in seed size ('Tamnut 74'), one for early maturity ('Langley'), and more recently several releases have been for their high oleic acid trait combined with one or more resistance traits.

A very significant event occurred in 1969 when the Texas Peanut Check-off passed and the Texas Peanut Producers Board was established. The Board has been a strong financial supporter of our breeding program since that time. Sclerotinia became a significant restraint to the Central Texas peanut crop, starting in about 1983 and a special effort was established in our program, in collaboration with the TPPB in 1987 to develop resistance to the pathogen. When root knot nematode resistance was discovered in wild peanut species in 1986, an intense effort began to transfer this gene from a wild peanut, through a double bridge, into cultivars. This was accomplished with the release of COAN in 1999 and NemaTAM in 2001. The TPPB provided the support for development of these two cultivars. About the time we were getting heavily involved in the Sclerotina and Nematode problems, Tomato Spotted Wilt Virus made a serious

onslaught of the South Texas peanut crop. In 1986 the South Texas crop was essentially destroyed. The irony of sclerotinia and TSWV is that our release of Langley in 1986 corresponded to the sclerotinia outbreak and we have never identified anything more susceptible to sclerotinia than Langley. We released Tamrun 88 in 1988, corresponding to the outbreak of TSWV, and we have never identified any line any more susceptible to TSWV than Tamrun 88. We use these two cultivars as susceptible checks or as 'spreader rows' of the respective diseases in our field screening nurseries.

Since 1995 much effort in the breeding program has gone into developing the high oleic trait and incorporating the genes into our entire program. A significant effort now goes into the development of molecular markers for the various traits we work with. Markers have been identified for the nematode resistance gene and other markers are nearing fruition for us to use in accelerating the development of new and better cultivars with high oleic acid, sclerotinia resistance, earliness and drought tolerance.

Collaborators. An important aspect of the AgriLife Peanut Breeding Program is the several collaborators we have within the A&M University System and some outside the System. These are not named in any specific order other than we start on the A&M Campus and work out in distance. See Table 1 for the unit/agency and the area each researcher covers. The collaborators are: Dr. James L. Starr, Mr. James Grichar, Dr. Mark Black, Dr. Jim Muir, Dr. Todd Baughman, Dr. Mike Schubert, Dr. Terry Wheeler, Dr. Jason Woodward, Dr. John Burke and Dr. Paxton Payton at the USDA-ARS center in Lubbock, Dr. Naveen Puppala, New Mexico State Univ. and Dr. Hong Zhang and Dr. Thea Wilkins at Texas Tech.

Table 1. Collaborators with the Texas AgriLife Research Peanut Breeding Program.

Name	Location/Agency	Area of collaboration
Dr. James L. Starr	Plant Pathology & Microbiology Dept. & AgriLife Research	Nematode screening, Leafspot screening, Sclerotinia screening, Molecular marker analysis, and O/L analyses
Mr. W. James Grichar	Beeville/Yoakum AgriLife Research	Field Screening for Leafspot at Yoakum and South Texas, Field plot maintenance at both
Dr. Mark C. Black	Uvalde REC AgriLife Extension	Plot care and screening of Breeding lines for Tomato Spotted Wilt Virus
Dr. T.A. Baughman	Vernon REC AgriLife Extension	Evaluation of advanced lines and cultivars
Dr. A.M. Schubert	Lubbock REC AgriLife Research	Evaluation of materials for quality traits, oil content and O/L analyses
Dr. T. Wheeler	Lubbock REC AgriLife Research	Evaluation & screening for Sclerotinia and other diseases
Dr. J.E. Woodward	Lubbock REC AgriLife Research	Evaluation & screening of materials for various disease pathogens
Dr. John Burke	Lubbock ARS	Drought Tolerance
Dr. Paxton Payton	Lubbock ARS	Drought Tolerance
Dr. Naveen Puppala	New Mexico State	Drought Tolerance

Dr. Hong Zhang	Texas Tech University	Drought Tolerance
Dr. Thea Wilkins	Texas Tech University	Genomics
Dr. J.P. Muir	AgriLife Research Stephenville	Forage Physiology

Objectives of the Texas Peanut Breeding Program

Objective 1. Enhance the entire peanut breeding program with development and use of molecular tools for better understanding of gene action, use of molecular markers for fingerprinting our materials and use in marker assisted selection (MAS).

Objective 2. Enhance germplasm resources through molecular methods that would include introgression of genes from the wild peanut collection with either conventional breeding techniques or molecular means. If it proves possible to develop and release transgenic peanut as cultivars, we would expect to work on introduction of "foreign genes" into productive cultivars. We expect to have a better idea within 2 or 3 years, as Virginia Tech is currently testing this through its efforts to release a transgenic peanut cultivar. Although we do not intend to develop GM peanuts *per se* until such prove to be marketable, it would be prudent to collaborate with researchers who are already developing GM peanuts. Colleagues at TTU and the Lubbock ARS have generated transgenic plants containing genes for drought tolerance, with the goal of us performing field testing within 1-3 years. It is important to keep conventional and GM peanuts separate to avoid contamination of AgriLife cultivars and breeding lines. We will need separate facilities for evaluation of this material (see below).

Objective 3 Develop and release improved cultivars of peanut that will have improved quality traits, better marketing traits, increased levels of disease resistance, forage potential, earlier maturity and characters to improve water use efficiency.

Objective 4. Develop cultivars that have an elevated oil content – short term 54 to 55 %; long term 62 to 64 %.

Objective 5. Maintain, characterize, and utilize the germplasm resources of cultivated peanut and the important world-class wild species collection in our possession. Also, to maintain and utilize the numerous hybrid and mapping populations that have and will be developed.

Plan of Action
By objective

I. Molecular genetics

The molecular genetics work will be done at the AgriLife Research and Extension Center at Lubbock by Mark Burow and his staff with support in developing and maintaining mapping populations from Michael Baring and Charles Simpson. This effort must be supported by a full-time position for technical level support in the molecular laboratory for the continual flow of molecular analyses that will be associated with the overall program efforts, including:

A. Basic understanding of gene action to facilitate the identification of relationships of plant materials as well as associations of multiple genes that control specific characters or groups of characters. An Assistant Research Scientist or post-doc and graduate student on this effort is probably minimal and enhanced by one or more part time worker(s).

B. Molecular markers for fingerprinting the various breeding lines and cultivars that are being developed by the over-all program.

C. Molecular marker development for use in expediting the breeding line and cultivar development for the various traits listed below under Breeding and Cultivar Development.

II. Germplasm enhancement

The primary life-blood of the over-all Peanut Breeding Program will be the germplasm enhancement efforts which result from molecular identification (above) and trait identification (below).

A. Wild species evaluations and utilization will be important in learning more about what gene controlled traits the wild species contain and learning how to utilize those genes by studying function (above) and how to introgress (below).

B. Cultivated accession evaluation and utilization will continue to be an important aspect of the project because there are literally thousands of lines which can be evaluated for traits that will be useful in the breeding and cultivar improvement program.

C. Development and utilization of introgression pathways will be important in taking advantage of the valuable genes and gene sequences that we know about and that will be discovered in the future within the 80 wild species and their ca. 1800 accessions.

D. Line development within cultivated populations we develop and in introgression hybrids already existing and to be developed in the future will be essential to the success of the peanut breeding program.

III. Breeding and Cultivar Development (Burow, Baring, Simpson)

A. Early maturity

The early maturity breeding effort is being lead by Dr. Burow at Lubbock. He is making some significant strides of progress in that effort and has lines that are being tested on a state-wide as well as national scale. As this work progresses there will be a need through breeding and selection to incorporate this earliness into the entire Texas Peanut Breeding Program. Molecular markers for this trait will be essential. Although maturity appears to play a major role in avoiding off-flavors, there is some evidence to suggest the presence of other genetic factors that need to be understood better,

B. Oil quality and sugar content.

This effort is being lead by all three Co-PI's because we each have responsibility for the part of the program under our guidance, i.e., Burow -- Oil quality of cultigen materials and hybrids as well as studying the gene action and molecular markers of oil quality; Baring – Oil quality of cultivated materials and yield testing of developed lines; Simpson – Oil quality in nematode resistant. Sugar content and flavor are also important parts of the program. We are trying to keep sugar content within a standard range. With the retirement of Dr. A. Schubert, support for a technician to run oil, sugar, and flavor measurements was lost. We are currently attempting to support a technician from soft funds.

C. Oil percentage increase is a significant part of the program at present.

All three projects are involved in this effort; Burow in the analyses of most of the materials tested in the germplasm collection because the NMR is at his location. Burow is also involved in studying the molecular aspects of the oil percentage trait in efforts to define gene action(s) and to identify molecular markers for use in breeding, as well as making crosses and studying progenies. Baring is involved in the crossing of parents identified as high in oil percent and selection and evaluation of superior lines. Simpson is involved in the oil percent from the wild species and interspecific perspective. Some wild *Arachis* have been identified as having above 64% oil, and the transfer of this (these) gene(s) to cultivated peanut is a high priority.

D. Drought tolerance and moisture utilization efficiency

Again this effort is being lead by Dr. Burow at Lubbock but is still in the development stages. Current efforts at identification of useful germplasm involve a collaborative effort with the Lubbock ARS, but most physiological measurements or water use efficiency or heat tolerance need be performed in growth chambers. Development and use of molecular markers appears to be a better way to breed for this character in populations useful for an improvement program.

E. Foliar disease pathogen resistance

1. Leafspot resistance

Burow and Baring are both concentrating on this trait in efforts for developing resistance from some of the interspecific hybrids from the Stephenville wild peanut collection.

2. Tomato Spotted Wild Virus resistance

Baring (with close collaboration from Dr. Mark Black) is doing most of the work on this disease. Good resistance has been identified, but better resistance is being searched for in the germplasm and other sources.

F. Soil borne disease pathogen resistance

1. Sclerotinia

Burow, Baring and Simpson all three have major parts to play in this effort. Burow is developing molecular tools to place us in a position to use molecular markers for selection; Baring is making large numbers of crosses to develop more resistant breeding lines and Simpson is utilizing a natural (supplemented with inoculation) sclerotinia population to do field screening at Stephenville for all three parts of the program. This screening is a major part of the Stephenville field activities because we do not have another location where we can inoculate with sclerotinia without fear of contaminating production fields of our clientele. John Cason is the essential element in these screenings for doing/supervising the field plots.

2. Pythium

Pythium is becoming one of the serious soil borne organisms to affect peanuts in West Texas so screening the germplasm is going to be necessary in hopes of identifying resistance for breeding resistant varieties. Terry Wheeler (Lubbock) has done some initial work on this.

3. Verticillium wilt

Vert. is another disease that is developing into a serious pest in West Texas, especially in fields where the same pest has damaged cotton in recent crops. Screening work will need to begin soon. Jason Woodward (Lubbock) is planning to begin testing this summer.

4. Southern blight

Also known as stem rot, is a disease that has been researched in depth but no one has

identified significant levels of resistance to the organism in cultivated peanut lines. Resistance has been identified in a wild peanut species, and the program at Stephenville has initiated a program to transfer the resistance into a cultivated peanut line.

G. Nematode resistance

1. Root knot nematode

We have transferred a significant level of resistance (near immunity) from wild peanut species into cultivated varieties. The process now is to incorporate that resistance gene into all lines we develop in order to reduce the possibility of the build up of populations in areas that are being grown to peanuts now.

2. Northern root knot nematode

The same wild species source of the resistance to root knot nematode has resistance to the Northern root knot organism. In collaboration with Dr. J.L. Starr we are planning to develop lines and varieties that have this second layer of resistance.

H. Insect resistance

1. Lesser Corn Borer

With the essential elimination of dry land peanut production in Texas this pest has, for the most part, ceased to be a problem unless a grower runs short of water.

2. Thrips

Thrips is the vector of the tomato spotted wilt virus and if total resistance to thrips could be accomplished it might be worthwhile to try and breed for thrips resistance. Some materials were tested at Denver City a few years ago and some lines were found that appeared to have little or no thrips damage. These lines could be tested further to determine whether there is a relationship between thrips resistance and TSWV resistance.

I. Forage peanuts. Numerous rhizomatous accessions exist in the wild species collection and other wild species which hold some potential for development of forage cultivars. Collaborations with forage researchers in AgriLife Research may prove fruitful in the future for release of forage cultivars both wild and cultivated species.

J. Other breeding efforts that are involved in our thinking processes but are more distant in the future for major effort include such things as breeding for non-allergenic peanuts; developing herbicide resistant lines by using mutagenic chemicals on diploid populations; breeding peanuts that might contain specific medications or vitamin or mineral supplements; breeding forage peanut cultivars -- either rhizomatous types, or interspecific hybrids that produce an abundance of plant tissue useful for biomass, or that have extreme cold tolerance for planting to 48 degrees north latitude.

IV. Germplasm Maintenance

A. **Cultivated Species.** Maintaining the cultivated materials that this peanut breeding program now possesses will be highly important for future cultivar development and release.

a. Collections that we have made in the primary, secondary and tertiary areas of cultivated germplasm distributions must be maintained as near the original genetic make-up as possible. This means keeping the seeds in cold storage as long as possible, rejuvenating only as needed, (e.g., we have cultivated seeds that have been stored in proper conditions for more than

35 years, with a minimum of loss in germainability) and when re-grown, done with no, or minimum use of herbicides and/or other chemicals, and under as much of a controlled environment as possible (i.e., no bees present and no soil borne diseases or nematodes.

b. Breeding lines that are developed but not taken to release should be preserved as stored seeds. Such plants offer possible unique allele combinations for future use.

B. **Wild species. (See Appendix A for a history of the collection.)**

Maintaining the wild *Arachis* species collection now housed at the Stephenville AgriLife Research and Extension Center will be essential for the long term viability of the Texas peanut breeding program. It has taken an immense amount of effort to collect and introduce this collection into the USA, and with the destruction of the native habitat and the change in laws in countries where the accessions are native, we cannot replace most of the accessions at the present time. We do not know what the future holds in this regard, but we do know that the future of germplasm exchange with Bolivia, Brazil, Argentina, and other countries does not look promising for the next 5 to 10 years. The inability of the PI station in Griffin to maintain these materials adequately because of insufficient and declining resources reinforces the need for AgriLife to take the lead in this regard. The additional value in these materials for biofuels demonstrates new and previously-unknown usefulness of these materials, and the need for AgriLife to continue to actively use these materials for breeding efforts. The TAES/AgriLife program is the only program in the US that has successfully taken wild species materials and translated them into released cultivars.

a. Collections -- We have approximately 1800 accessions of the 80 described species and approximately 50 accessions of ca. eight undescribed "new" species that are being studied for future description as species. These materials are all being maintained at the Stephenville REC in facilities that have been built and maintained for that purpose over the past 30 years. As long as Charles Simpson is able to continue the effort of maintaining this collection it seems prudent to utilize these facilities for that purpose. In the absence of significant health issues this can be the plan for at least 10 more years. Alternatively, the collection could be moved to College Station. If adequate facilities are built at College Station it might be feasible to move the collection (est. cost of facility = $1.5 to $2 million). But a MS-level person would need to be hired to maintain the collection in College Station. If such a facility is not built it would be far more desirable to hire a curator at Stephenville (where facilities already exist) when C. Simpson is no longer able to do/supervise the task. Because of the specialized nature of this task, and the general lack of trained personnel, it would be desirable to begin training a graduate student or other person who could assume responsibility for the curation and utilization of germplasm at Stephenville in the future. A PhD-level scientist would have the potential and scientific standing to make this happen.

The collection consists of three basic types of species: 1) Species which produce virtually no seed in our Texas environment and must be maintained as vegetative materials year-round, year in and year out; 2) Species which produce adequate seed to store, but the storage life can vary widely so it is imperative that live plants be maintained on a continuing basis; 3) Species which produce adequate seed so that they can be preserved as seed in cold storage for longer periods of time. (We have seed that has been stored up to 35 years and is still viable, though not with high germination percentage).

The seed of the wild collection are presently stored in two primary types of storage. A small amount of material is stored in the cold storage box that was built about 35 years ago that contains a total of 2,443 cubic feet and is maintained at ca. 38 degrees F and ca. 58 % relative

humidity. This facility reached capacity in about 1990, so since that time a "new" used refrigerator has been purchased each year by C. Simpson to store the year's harvest. We have a total of 20 used refrigerators and 5 used freezers where the seeds are stored. A plan to change this beyond 5 years is presented later in this document.

We have not had a major seed rejuvenation "grow out" since 1992 so most of the seed that are stored are more than 15 years old, many are more than 20 years old and some (like the cultivated lines) are as much as 35 years old. The current needs are to have the resources to do a systematic re-increase of seeds at least every 15 years. For 1800 accessions this would require planting at least 120 lines each year, preferably more. These increases need to be done in a greenhouse (See history in Appendix A). There presently is such "extra" greenhouse space at Stephenville but resources are needed to operate the facility (electricity for cooling, limited gas, water, and a limited amount of structure maintenance).

Maintaining the vegetative collection is imperative but requires a lot of work. Plants must be repotted every three years because they become root-bound. Some of the species require a pH of less than 4 while others will only survive in a pH above 7.5. Some species grow in water in their native habitat while others survive, grow, and produce seeds with less than 10 inches of rainfall per year. Because of this variation, an automated watering of these many accessions is impossible on a continuing basis. For short times, i.e., during long holiday breaks in December automated watering will suffice, but certain death can be expected after long periods of the practice (we have the background to backup this statement, we have tried). Even with an automated watering system, the collection must be checked every day of the year.

Estimated Cost to maintain the Wild Peanut Collection

The estimates of personnel and operating requirements needed to maintain the wild species collection including vegetative materials and required seed increases are as follows:

-1/2 time of a technician to maintain the greenhouses and oversee and do the primary task of maintaining plants and growing seeds for increase and supervising part-time help.
-2 part time student workers (20 hrs/wk for spring and fall; 40 hrs/wk for summer months).
-2 additional part time students for seed harvest and processing (20 hrs/wk each, Sept - Jan).
-Electricity, gas, water, and R/O system
-Greenhouse maintenance and repairs.

Dollar breakdown for yr. 1; with inflation costs the total could increase significantly by yr. 5. See Table 3 on pages 16 and 17 for information on the full breeding program.

Table 2. Costs of maintaining the Wild Peanut Species Collection

Item	Present		Annual Support Requested
	Cawthon budget	C&Grants	
Salary supplement -- Simpson			12,000
GH Technician ½ time----------	$15,500		15,500
Plus fringe @ 34%----------	5,100		5,100
Labor ----------	0	9,000	22,300
Plus fringe @ 8.5%----------	0	765	1,895
Electricity ----------	9,900		9,900

Electricity for seed increase greenhouse ----	0		4,390
Gas ----------	4,850		4,850
Gas for seed increase greenhouse ----------	0		800
Water ----------	1,450		1,450
R/0 System lease for greenhouse ----------	725		725
Electricity on seed cold storage unit	2,100		2,100
Maintenance and repairs ----------	0	3,500	3,500
Total annual estimated cost for maintaining the wild peanut collection	**$39,025**	**$13,265**	**$84,510**

These cost estimates reflect the fact that C. Simpson personally spends from 15 to 30 hrs. per week in maintaining the collection.

Outside support For the past 12 years we have received some support from the Peanut Foundation – a part of the American Peanut Council – to serve as a backup to the USDA Peanut Curator, Dr. R.N. Pittman, housed with the primary USDA collection at the USDA Plant Germplasm Center at Griffin, GA. We have provided him ca. 250 replacement and newly collected accessions under this program. We have continually requested funds from the Foundation to maintain the vegetative collection, as well as to do the needed seed increases, and to do some evaluation. However, the $10,000 per annum the Foundation has provided has only been enough to lend some assistance to maintaining the vegetative collection with no support for seed increases or evaluation. There has been a request by N.C. State University to move this support to NC State beginning in 2009. We have not received word on the decision (as of June 29, 2009).

C. Mapping populations.

a. Cultivated and interspecific populations

We are currently maintaining and building two populations of interspecific origin. Maintaining this type of population is very difficult and time consuming. We will need to maintain these tetraploid populations indefinitely.

b. Wild species

We have not entered these types of studies to date, but will probably do so in the near future. Diploid populations offer some insight into gene action that is not easily gained from a tetraploid mapping study. In addition, SNP-based maker development and utilization will be best worked out at the diploid level, because of the simpler molecular genetics compared to tetraploids.

Needs of the Texas Peanut Breeding Program
(All phases including breeding, molecular and wild species,
See spread sheet following this narrative)

A. Personnel

The personnel needs of the Texas Peanut Breeding Program for the next five (5)[and 10] year period from state appropriated funds include the following:

Lubbock

1. The program needs a full time field person at the Research Associate level. The current field technician (Jamie Ayers) is expected to complete his MS degree within the next year and be eligible for promotion.
2. The program needs a full-time Assistant Research Scientist to conduct marker work on introgression and marker-assisted selection. This is a long-term program and would benefit significantly from such a position.
3. The program needs a full time laboratory technician position to supervise and conduct seed quality lab research (oil, sugar, flavor). This would replace the technician lost in the 2003 RIFs.

Stephenville

1. The number one priority for the program is to provide resources to bring the greenhouse technician position back up to full state support to assure proper support for maintaining the wild peanut collection, An equal priority is to maintain the field Research Associate position which supervises all field activities and other personnel. The present occupant of this position (John M. Cason) is a vital part of the over-all peanut breeding effort. John does/supervises all the land preparation, seed preparation, planting, plot maintenance, data gathering, harvesting, processing of samples, grading, and data analysis for the nematode and sclerotinia screening plots at Stephenville. In addition he assists in the planting, plot maintenance, harvest, and some processing of plots in West Texas. John provides the analyzed data to the PI (C. Simpson) and helps in the interpretation and reporting of said data.
2. We need additional resources to cover the cost of 2 part time student positions year round and 2 additional part time students for harvest and processing of wild species seed increases -- September through January. (See the estimates above on maintaining the wild species germplasm collection.)
3. We need additional support for the AgriLife Research - Stephenville budget for utilities to help in maintaining the wild peanut germplasm collection and also for general repairs of greenhouse equipment. (See the estimates above on maintaining the wild species germplasm collection.)
4. By the end of this next five year period we need to begin training a graduate student (or possibly John Cason) in the curation and utilization of the *Arachis* wild species collection. This person would then have the potential to assume responsibility for the program when C. Simpson is no longer able to perform these duties.

College Station

1. The number one priority of the program is support for a full time technician to assist in the greenhouse and field plot operations.

Table 3. Tabular breakdown of current and requested support for Peanut Breeding Program.

Personnel									
Location	**Lubbock**				**College Station**				
	Current	Contrac/	Needed	**New R&G**		Current	Contrac/	Needed	**New R&G**
	R&G	Grants	R&G	**Request**		R&G	Grants	R&G	**Request**
Excluding Fringe:									
Burow	61,310	-	63,150	1,840	Baring	65,200			
Ayers	33,800	-	36,000	2,200	Field Tech			30,000*	30,000
Asst Res.Scientist	-	35,000	40,000	40,000					
Lab Tech	-	26,000	27,000	27,000					
Part time Labor	-	25,000	-		PT Labor		29,000		
Grad Students (TTU)	-	52,000	-		Grad student		31,894		
Operations									
Field Rent	-	2,500	-		Field rent		600		
Supplies	-	10,000	-		Supples		6,650		
Field Repairs	-	5,000	-		Repairs		3,260		
Lab Repairs	-	5,000	-		Off site testing		9,300		
Maint Contracts	-	4,000	-		Travel		4,458		
GH gas	-	4,000	-						
Fuel	-	4,000	-		Fuel		5,000		
Molecular Supplies		10,000	-		Other		8,500		
Oil Supplies	-	5,000	-		Misc.		1,000		
Totals	**95,110**	**187,500**	**166,150**	**71,040**			**99,662**		**30,000**
Including Fringe:									
Burow	77,459								
Ayers	47,307	-	50,000						
Asst Res.Scientist	-	45,563	54,000						
Lab Tech	-	36,278	40,000						
Part time Labor	-	25,000	-						

Table 3. Page 2.

Tabular breakdown of current and requested support for Peanut Breeding Program.

Stephenville	**Breeding**			**G'plasm collection**		**Breeding and**			**Total**		
	Current	Contrac/	Needed	**Maintenance**		**Germplasm**	**New R&G Resources**		**3 Location**		
	Cost R&G	Grants	R&G	Cost R&G	Con&Grts	**Present Total**	**Requested (Steph)**		**New R&G**	**Estimated**	**Annual**
						Steph. R&G input	Germplasm	Breeding	**Request**	**cost of new**	**depreciation/**
Simpson	$1,395					$1,395	**12,000**		**not**	**equipment**	**replacement**
Cason	44,586*		50,000*			44,586*		**50,000**	**including**	**and**	**costs of**
Bennett		15,500*		15,500*		15,500*	**20,600**	**15,500**	**equip.**	**facilities**	**all equip.**
Pt-Time labor		23,000			16,000		**24,195**			**shown on**	**in breeding**
										Pgs 19&20	**program****
Off site sample testing		5,000									
GH gas	4,850			4,850		9,700	**5,650**	**4,050**			
GH elect	9,900			9,900		19,800	**14,290**	**5,510**			
GH H20	1,450			1,450		2,900	**1,450**	**1,450**			
GH R/O syste	725			725		1,450	**725**	**725**			
Supplies		5,000			4,000		**1,500**				
Repairs		1,500			2,500		**2,000**				
Irrigatio. Fld	1,500					1,500		**1,500**			
Farm exp.	1,200					1,200		**1,200**			
Off & Lab	800			600		1,400		**1,400**			
Process Bld	1,200					1,200		**1,200**			
Cold Storage	1,500			600		2,100	**2,100**				
Totals	$69,086	$50,000	$50,000	$33,625	$22,500	$102,711	**84,510**	**82,535**	**$268,085**	**$246,900**	**$160,000**

* Does not include fringe

** Some items have a 10 year depreciation cycle, others have a 15 year cycle (estimated).

B. Equipment (not included in cost estimated in Tables 2 or 3). These are all one time, non-recurring costs.

1. Laboratory

Lubbock: A replacement gas chromatograph is needed to replace the 20 year-old model that we are using currently. The manufacturer, Agilent, does not sell replacement parts for this model any longer. For evaluation of GM peanuts, the following equipment will be needed at a separate site: drying trailer and gas burner, sheller, sizer, balances, and bar-code reading equipment.
Stephenville: Bar coding equipment (complete) and thermal printer for printing plastic stakes so we could automate the process of record keeping on the live plant and seed of the wild peanut collection.
College Station: Bar coding equipment (complete) and thermal printer for printing labels and tags for field plots so the grade data could be entered directly into the computer for analysis (need a system similar to the one that is in current use in Stephenville.)

2. Greenhouse

Stephenville: The Stephenville greenhouse operation will need from 2 to 5 replacement (possibly more) heaters for the greenhouses in the next five years.
Lubbock: A growth chamber is needed for abiotic stress measurements in breeding populations.

3. Field

The greatest need for field equipment at present is building a second generation of the "Baring Thresher" for the Lubbock location and replacing the Kincaid thresher at the Stephenville and Lubbock sites.

C. Facilities (not included in cost estimated in Tables 2 or 3).

1. **Cold storage.**

a. College Station: The cold storage unit at College Station is in dire need of upgrade or replacement.

b. Stephenville: The cold storage facilities at the Stephenville site are adequate for the moment, but as lines are grown out and additional interspecific populations are developed, more cold storage will be needed.

2. **Facilities for testing and processing of transgenic peanut.** GM peanuts are under development for resistance to diseases such as Sclerotinia blight and to abiotic stress, primarily drought stress. Both traits are important to the needs of Texas producers. To keep conventional and GM peanuts separate to avoid contamination of AgriLife cultivars and breeding lines, the following facilities and associated equipment will be needed (we are assuming that a suitable field site can be found):

- storage building
- cold room or refrigerators/freezers

Here is our priority listing for the equipment shown above

1. Gas Chromatograph with auto-sampler at Lubbock Center ($50,000)
2. Upgrade of cold storage at College Station ($25,000)
3. Bar Code system for Peanut Collection at Stephenville ($7,000)

4. Cold Storage addition for Stephenville ($25,000)
5. Lubbock facilities for handling GM material ($12,000)
6. Stephenville Greenhouse heater updates ($7,000)
7. Bar Code system for College Station ($7,000)
8. Equipment for processing GM material ($8,900)
9. Lubbock Growth chambers ($20,000)
10. Baring Thresher for Lubbock ($70,000)
11. Kincaid Thresher for Stephenville ($15,000)

Appendix A. History of the Texas peanut germplasm collection.

Preservation of a germplasm collection in Texas had a meager beginning in the late 1950's when B.C. Langley began putting some cloth and paper bags of seed of various lines in a peach cooler at the Stephenville station. In 1967 when C.E. Simpson arrived in Stephenville an inventory of those bags revealed that less than 5% of the seed were viable and more than half of the lines were lost. The first five years of Simpson's work was done without usable cold storage, but a seed storage facility was built in 1972 and a systematic process of storing all introductions and breeding lines began. A wild species collection was actually begun in 1968 when five lines were received at Stephenville from the USDA germplasm curator in Experiment, GA and in 1969 approximately 40 lines were obtained as plants and about 50 accessions as seed from the USDA peanut breeder at the Tifton, GA station. Most of the seed were from a collection trip the USDA breeder had made in 1968. In 1972 Simpson became involved with Drs. Walton and Margaret Gregory at NC State University and over the next three years he obtained most of the several hundred accessions as plants or as seeds that Dr. Gregory and colleagues had collected in South America in 1959-1961 expeditions. In 1976 Simpson became a member of a germplasm collection team that was funded by the International Board for Plant Genetic Resources (IBPGR) to collect, preserve, distribute, and utilize wild and cultivated peanut germplasm from the primary, secondary and tertiary centers of diversity in South America. The commitment we made was that we would introduce material into the USA, multiply it and distribute it to the USDA national collection (Griffin, GA) and the international collection at ICRISAT, when possible. There were some quarantine issues that never were solved in transferring some materials into India. In 1980 Simpson became co-leader of these teams and over the next 25 years they collected ca. 1500 wild peanut accessions and ca 4000 cultivated land races. These materials were introduced into the USA when possible and most are housed at the Stephenville REC. The cultivated collection has also been supplemented over the past 40 years by introduction of lines from the USDA plant introduction Center at Griffin, GA as well as direct introduction of materials from China, Japan, India, South Africa, West Africa, Australia, Mexico, Peru, and several Caribbean and central American countries. Additional materials have been more recently collected from expeditions to Paraguay in 2002 and 2007.

Numerous re-multiplication increases of seeds (cultivated and wild) have been made over the years at Stephenville. The first two generations of new introductions from foreign countries were grown in the greenhouse to assure that seeds were not contaminated with diseases or insects. Subsequent increases were made in field plots. It was supposed for many years that we could make field increases of the seed producing wild peanuts and not have large amounts of contamination but with the advent of molecular techniques it appears that to maintain the integrity of the collections we must make our increases in the greenhouse where we can exclude bees and better control rodents, birds, and varmints that can cause mechanical mixtures. These greenhouse increases need to be conducted only in the spring, summer and fall to eliminate the expense of heating the greenhouse in the winter months.

The programs at College Station and Lubbock have cold storage facilities for preservation of introductions and breeding lines. Both of these locations have important cultivated germplasm that has been obtained from various sources during the past eight to ten years.

May 8, 2009

MEMORANDUM

TO: Dr. Bill Dugas, Interim Director
Texas AgriLife Research

THROUGH: Dr. Bill McCutchen, Associate Director
Texas AgriLife Research

THROUGH: Dr. David Baltensperger, Head
Department of Soil and Crop Sciences

THROUGH: Dr. Greg Reinhart, Head
Department of Biochemistry and Biophysics

FROM: Dr. John Mullet, Professor
Department of Biochemistry and Biophysics

SUBJECT: Request for Technician Funding

A technician has worked in my laboratory for the last year providing excellent technical support for various energy sorghum research projects. Her salary ($35,000 total costs) was funded from multiple industry sources. I would like to continue to support this technician but from AgriLife Research funding for several reasons:

1. The technician has been helping us carry out Digital Genotyping Analysis (DGA) a new high throughput sequence based genotyping technology we have developed. I would like to expand the scope of our DGA activity independent of industry funding so that AgriLife retains freedom to operate with the materials analyzed including germplasm being added to the sorghum-breeding program. Currently we use DGA for analysis of sorghum germplasm and for marker-assisted breeding. Most of this work is currently being funded by industry.

2. It would be useful to begin testing DGA on additional species that are of importance

to AgriLife Research. For example, David Stelly, Bill Rooney and I want to test DGA on cane and sorcane as part of the development of wide hybridization technology for bioenergy crop development. It would also be useful to begin developing DGA for applications in corn, cotton and other species (the technology can be used to genotype any organism).

3. DGA will be especially useful for the genetic analysis of sorghum germplasm in order to stratify the germplasm collections for association studies and deep trait profiling. This type of work is pre-commercial and it would be best to maintain this data with complete freedom to operate until commercially useful discoveries are made. Technical support from AgriLife Research would make this possible.

4. AgriLife Research and the Department of Biochemistry and Biophysics have been funding a Graduate Student position in my lab for the past 2 years to help get our energy sorghum program to the point where it could be funded from outside sources. This investment helped obtain substantial funding from Ceres and Chevron. The graduate student support from AgriLife Research is scheduled to end 8/31/09. I think providing funding for a technician to support the activities described above would likewise provide substantial benefits to AgriLife Research.

xc. Bill Rooney

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: gerik@brc.tamus.edu; lt-wilson@aesrg.tamu.edu; JMGould@ag.tamu.edu; JALa...
CC: RVAvant.EXTERNAL.Internet; Mark.Ellison@tamu.edu; JCox@ag.tamu.edu; Mark...
Date: 6/12/2009 8:24 AM
Subject: Texas Cancer Prevention: Research and Funding Possibilities
Attachments: cancerprevention.pdf

Dear Unit Heads,

As you may know the 81st Texas Legislature recently approved the appropriation of $450M for the next two years to fund grants for cancer research and prevention. The purpose is to provide grants for cancer research and prevention to expedite innovation in cancer treatment and expand cancer prevention and treatment capabilities. More details will follow, but some proportion of these funds could be allocated to nutrition-based, cancer R&D, and the grants will likely require some type of match by industry and/or other partners. Attached is the recent announcement and a link to CPRIT.
http://www.cprit.state.tx.us/funding.html

Mark Ellison and team will be providing a full briefing on both the Cancer Fund and the ETF on Aug 10 at the MSC complex. We would like to have all interested faculty who are interested in applying attend to get the details on applying. Mark will have the ETF staff and the Cancer Fund staff presenting at this meeting. The Cancer Fund board meets next week and we should have more details after that. They intend to go out with the first RFPs in late August.

We will provide more information as it becomes available. Please send to faculty as appropriate.

Thanks,

Bill

--

Bill F. McCutchen, Ph.D.

Associate Director

Texas AgriLife Research

Texas A&M University System

113 Jack K. Williams Administration Building

2142 TAMU College Station, TX 77843-2142

979-845-8488 Tel

979-458-4765 Fax

bmccutchen@tamu.edu

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: <Jim.Tates@Scotts.com>, <jeff.garascia@scotts.com>
CC: "Helms, Adam" <ahelms@tamu.edu>, "Baltensperger, David" <dbaltensperger@...
Date: 10/22/2010 4:20 PM
Subject: Thank You

Jim and Jeff,

Thank you and the Scotts' team!

We very much look forward to our RD and outreach collaborations. I briefly spoke to Jeffrey about exploring molecular markers and transgenic RD as it relates to turf and ornamentals. We would like to invite your team to College Station (or we can travel to your turf) in the not too distant future to discuss these and other area of mutual interests.

Thanks again. We will be in touch soon.

Bill

From: Tates, Jim <Jim.Tates@Scotts.com>
To: McCutchen, Bill
Sent: Fri Oct 22 10:02:44 2010
Subject: FW: Thank You

From: Tates, Jim
Sent: Friday, October 22, 2010 10:00 AM
To: 'Mark A Hussey'; p-gibbs@tamu.edu; bmmccutchen@tamu.edu; 'Monica Delisa'; 'David Baltensperger'; Helms, Adam
Cc: Garascia, Jeffrey; Turner, Kevin; Kelly, Steven
Subject: Thank You

Mark:

On behalf of the Scotts Miracle-Gro Company I would like to thank you, Pete, Bill, David, Monica and Adam for making Saturday, October 16th a day for all to remember. We are very excited to be partnered with Texas A&M and we look forward to the success of our new relationship over time. Beyond the research opportunity our agreement provides we also appreciate the opportunity to work with quality people. You all went out of your way as hosts for the signing event and game day to make our team feel like part of the Texas A&M community. Thank you. I know that is just one of the things that makes A&M a special place.

It is great to be associated with one of the top research universities and a first class institution.

Let’s make our partnership a tremendous success!

Best Regards,

Jim

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: Mark.Ellison@tamu.edu; bavant@tamu.edu; Cornwell@tamu.edu; DBaltensperge...
CC: mhussey@tamu.edu; w-dugas@tamu.edu; cnessler@tamu.edu
Date: 11/8/2009 11:23 AM
Subject: Tillman ETF

Following our call on Friday, which went very well, we need to prepare a package with CV to send to ETF committee. In tandem, we need to have Dr. Tillman visit campus (and Stephenville?) to meet with various faculty and administrators.

Brett, how much more information do we need to supply to complete official submission to ETF board?

David, will you coordinate visit? I (and Jackie) will help pull this together.

From deer stand... I believe we have a very viable candidate if Tillman is serious about moving to Texas.

Thanks,

Bill

Barry Tillman
ETF Review and Discussion
December 9 – 11, 2009

December 9, 2009

Arrive College Station – 7:02 pm, American Airlines, flight number 9504
Transportation to Hotel – Hawthorn Suites College Station, Confirmation #45689, Phone 979-695-9500
Picked up at airport by:
Dinner meeting –

December 10, 2009

7:30 am	Breakfast meeting – Drs. David Baltensperger and Richard White
9:30 am	Seminar Preparation
10:00 am	Seminar Presentation
11:00 am	Visit with Faculty, room 440
12:00 pm	Lunch with faculty
1:00 pm	(Note conflict with Curriculum Review Workshop)
2:00 pm	Meet with Administration
3:00 pm	
3:55 pm	
4:50 pm	
7:00 pm	Dinner meeting –

December 11, 2009

7:30 am	Breakfast with Schuerman, McCutchen
8:30 am	
9:30 am	
10:30 am	
11:00 am	
12:00 pm	Lunch Meeting with Plant Breeding Group
1:30 pm	
2:30 pm	Transport to Airport – Dr. Baltensperger
3:55 pm	Depart College Station – American Airline, flight number 3387

January 15, 2010

Dr. Barry Tillman
Department of Agronomy
University of Florida
Marianna, FL 32446-7906

Dear Dr. Tillman:

We are pleased to offer you an appointment as a member of the faculty of Soil and Crop Sciences at Texas A&M University. Your qualifications certainly fit our needs, and we hope you will give it serious consideration. The position offers a unique challenge and significant opportunities to develop highly recognized teaching and research programs in high oil peanuts and other oil crop development. It is expected that this would be a premier breeding position in this area in the world.

We anticipate that you will develop a nationally and internationally recognized integrated research and teaching program in high oil peanut breeding, and other oil seed crops. Our goal is for you to work with existing faculty to develop and foster interdisciplinary, leading-edge research programs, so we have a world-class program. We hope that you provide the leadership to create a scholarly foundation to develop a strong peanut breeding program. We expect that you will teach undergraduate classes within our department. We also expect that you will develop a strong graduate program to produce the leaders of tomorrow in this important area. We also encourage you to help educate the public by organizing conference, forums and workshops.

Teaching responsibilities generally include three courses each year but may be reduced for new faculty, those with leadership and program development responsibilities, and those with strong graduate student programs. Teaching will include both undergraduate and graduate courses and at least one is expected to focus on the development of intellectual property in plant breeding and genetics.

The appointment will carry the title of Associate Professor with tenure, subject to final approval by University Administrators and the Board of Regents. This will be a nine-month appointment and carry a salary of $11,000 per month with additional 3months be funding from the ETF fund for three years. The sources of funding for your appointment will be the College of Agriculture and Life Sciences and Texas AgriLife Research. We anticipate that you will be available to begin your appointment on September 1, 2010.

You will be eligible for any authorized salary increases effective September 1, 2011 and thereafter. Your appointment will be subject to all applicable employment laws, the Texas A&M University Systems Policies and Regulations, and Texas A&M University, and Texas AgriLife Research rules. You also are eligible for vacation and sick leave, each of which accrue at the rate of eight hours per month. The accrual and use of sick leave and vacation leave will be in accordance with System Regulations and University Rules. In addition, the schedule for the current year includes 13 paid holidays. You also are eligible to participate in a Texas A&M University System sponsored retirement plan. You can see an overview of these benefits at http://aghr.tamu.edu/benefits.htm.

Employment is contingent on your ability to provide employment eligibility documentation required by federal employment and/or immigration laws. In addition, to help expedite the administrative approval, we request that you visit the following website (http://dof.tamu.edu/forms < http://dof.tamu.edu/forms >) and submit the Verification for Degree Request, Self Identification, and Felony Conviction forms to the Dean of Faculties Office as soon as possible (fax: 979-845-1822 or email: dof@tamu.edu). This offer will not be approved until the degree verification and criminal background forms are signed and received by the Dean of Faculties, and the approval is contingent upon the successful completion of the degree-verification and background-check processes.

The position comes with and anticipated $1,750,000 from ETF of which three months salary per year is committed through the first three years (estimated at $100,000). $50,000 per year (total of $150,000) will be allocated for supporting germplasm work at Stephenville including $20,000 per year for program director (Charles Simpson) and $30,000 for technical support. Up to $20,000 from this fund will be allocated for moving expenses, i.e., truck rental or moving van rental, with appropriate receipts. This leaves $1,480,000 to be utilized for program development based on appropriate agreement with the Texas A&M Board of Regents, administration of

Texas AgrilLife Research, Texas A&M College of Agriculture and the Department of Soil and Crop Sciences.

To help cover start up expenses associated with implementing your program, the Department of Soil and Crop Sciences and Texas A&M AgriLife is allocating funds in the amount of $200,000 over the course of the next 3 years per the attached schedule. It also includes ongoing support for peanut research across the state, specifically with ongoing efforts at Stephenville committed for three years by AgriLife research. This start up package includes a graduate student position with the student majoring in Agronomy or Plant Breeding and one technician for at least three years. Funds for these positions can not be accumulated nor carried over into future years if not filled.

Please let me know if you have any questions about the terms and conditions relating to this appointment. If they are acceptable to you, please sign and date one copy of this letter and return it, along with the Agreement Concerning Tenure Status. The other copy is for your records. We are anxious to have you as a member of our faculty and we hope that you will be able to provide us with your response within the next few months.

Best Regards,

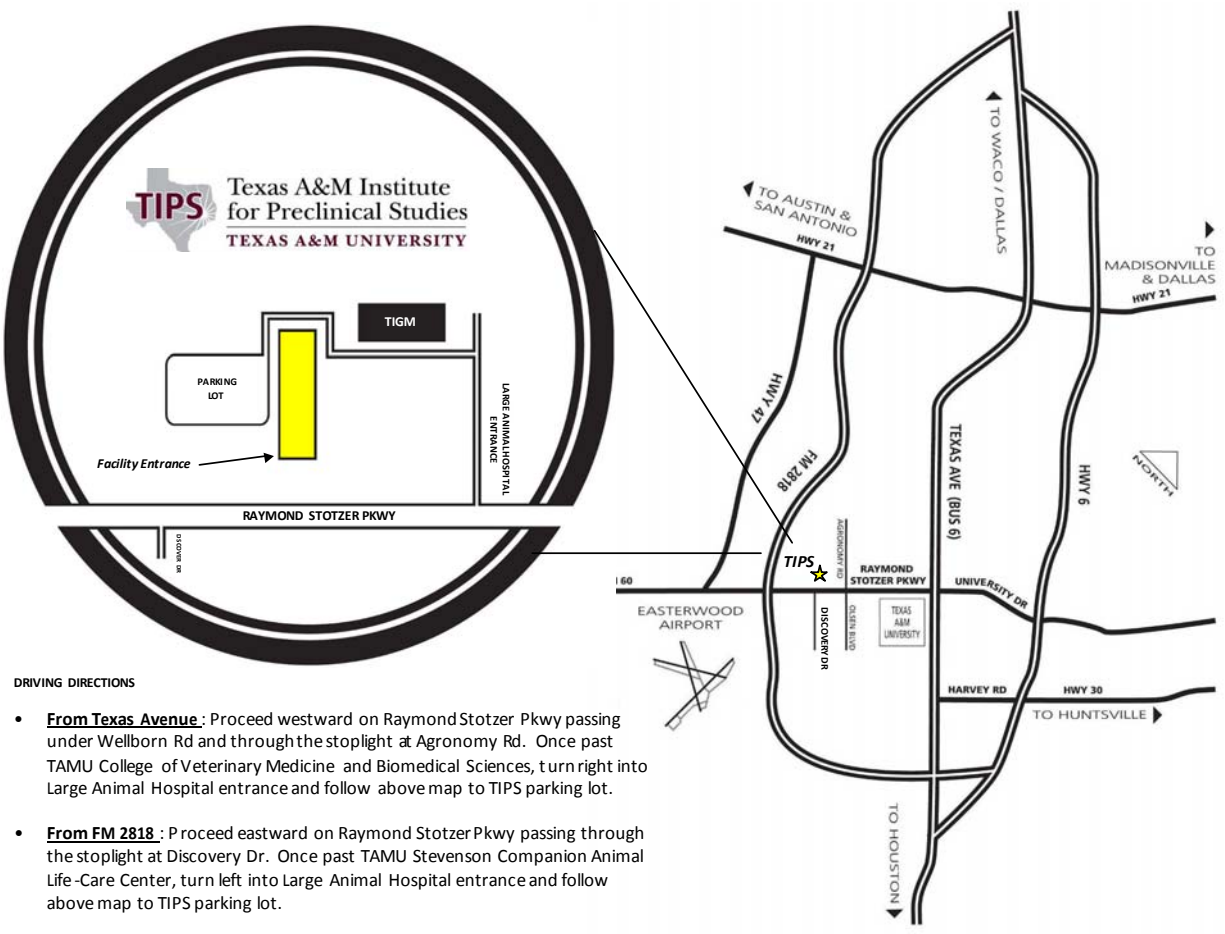
David D. Baltensperger
Professor and Head

I understand and accept the employment conditions as described in this letter and attachments.

_____

Barry Tillman Date

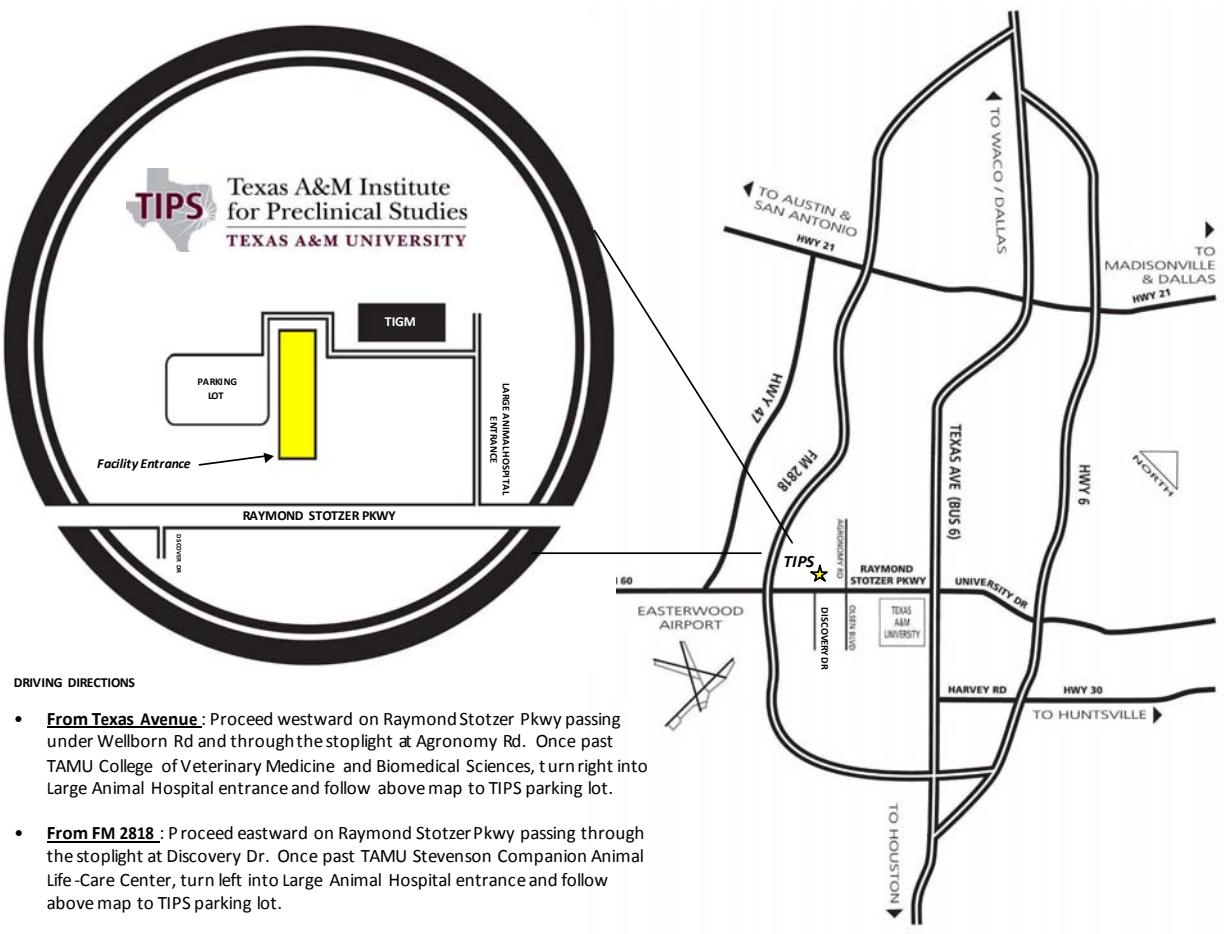
cc: Executive Associate Dean, Alan Sams
Director AgriLife Research, Craig Nessler
Dean and Vice-Chancellor, Mark Hussey



DRIVING DIRECTIONS

- **From Texas Avenue** : Proceed westward on Raymond Stotzer Pkwy passing under Wellborn Rd and through the stoplight at Agronomy Rd. Once past TAMU College of Veterinary Medicine and Biomedical Sciences, turn right into Large Animal Hospital entrance and follow above map to TIPS parking lot.

- **From FM 2818** : Proceed eastward on Raymond Stotzer Pkwy passing through the stoplight at Discovery Dr. Once past TAMU Stevenson Companion Animal Life-Care Center, turn left into Large Animal Hospital entrance and follow above map to TIPS parking lot.



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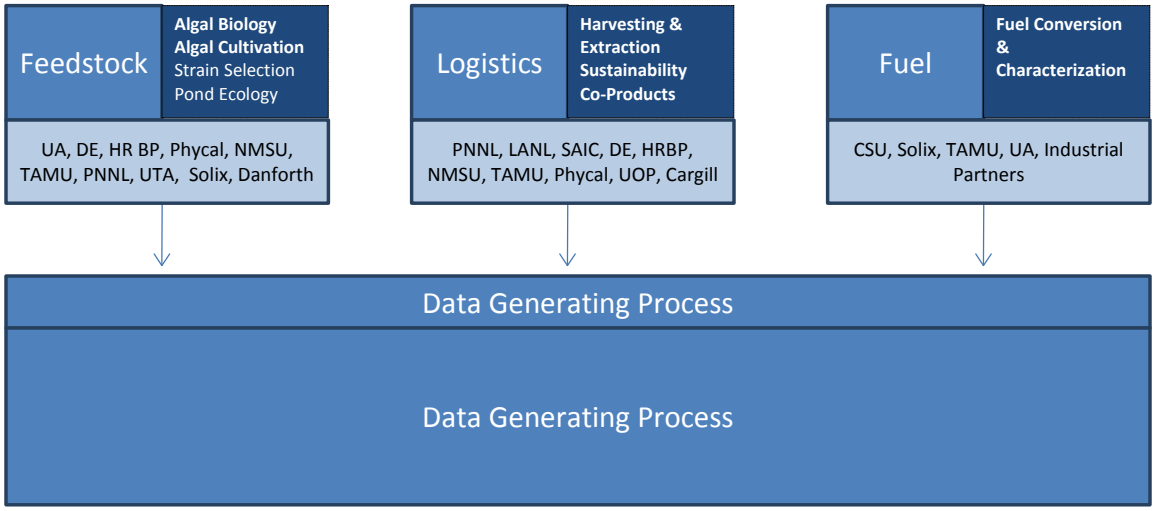
Tower of Babel

Mitigation Strategies and Value Added to Algal Industry


Feedstock
Algal Biology
Algal Cultivation
Strain Selection
Pond Ecology
UA, DE, HR BP, Phycal, NMSU, TAMU, PNNL, UTA, Solix, Danforth
Logistics
Harvesting & Extraction
Sustainability
Co-Products
PNNL, LANL, SAIC, DE, HRBP, NMSU, TAMU, Phycal, UOP, Cargill
Fuel
Fuel Conversion & Characterization
CSU, Solix, TAMU, UA, Industrial Partners
Data Generating Process
Data Generating Process

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: DBaltensperger@ag.tamu.edu; RVAvant.EXTERNAL.Internet; AHelms.EXTERNAL.I...
Date: 2/6/2010 9:58 AM
Subject: TSTA

Sounds like all 4 of you will be at TSTA meetings. Just a suggestion, but you might want to discuss among yourselves what subjects, messages and individuals need to be "touched" while in Dallas. Castor pulse, Seville per roses, Prosper property and potential JV, others?. You guys have a great set of meetings and have fun.

Bill

Ultra-low-gossyp ol Cottonseed Field Day
Cotton Incorporated and Texas AgriLife Research
9 September 2009

Corporate Relations Conference Room
Suite 100, Centeq Building A
1500 Research Parkway
College Station TX 77843

9:00 a m.	Depart for Texas A&M Farm, Brazos Bottom	
9:15	View Ultra-low-gossyp ol Cottonseed Trials	
9:45	Return to Texas A&M Campus	
10:00	Ultra-low-gossyp ol Cottonseed Technical Updates	*Keerti Rathore*
10:30	Humanitarian Impacts	*Keerti Rathore*
11:00	Implications for U.S. Cotton	*Tom Wedegaertner*
11:30	Overview and Opportunities with Texas A&M Cotton Program	*Bill McCutchen & Adam Helms*
12:15 p m.	Lunch and Wrap-up Discussion	
1:00	Meeting Adjourns	

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: DBaltensperger@ag.tamu.edu; Cornwell@tamu.edu; PLSchuerman.EXTERNAL.Inte...
Date: 9/24/2009
Time: 9:00 AM - 10:30 AM
Subject: Updated: Castro Bean Joint Venture
Place: 113 Jack K Williams Admin Conference Room
Attachments: meeting.ics

When: Thursday, September 24, 2009 9:00 AM-10:30 AM (GMT-06:00) Central Time (US & Canada).
Where: 113 Jack K Williams Admin Conference Room

~~*~*~*~*~*~*~*~*~*

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: JYoung@ag.tamu.edu; DBaltensperger@ag.tamu.edu; newellrogers@medicine.ta...
Date: 7/29/2010
Time: 8:30 AM - 1:00 PM
Subject: Updated: Meeting with Karen Newell-Fatty Acid Oxidation Inhibitors and Herbicides
Place: 218 Jack K Williams Administration Building
Attachments: meeting.ics

When: Thursday, July 29, 2010 8:30 AM-1:00 PM (GMT-06:00) Central Time (US & Canada).
Where: 218 Jack K Williams Administration Building

~~*~*~*~*~*~*~*~*~*

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: gerik@brc.tamus.edu; lt-wilson@aesrg.tamu.edu; JMGould@ag.tamu.edu; JALa...
Date: 2/5/2010 8:08 AM
Subject: USDA Biotechnology Risk Assessment Grants (BRAG) Program

Some of your faculty maybe interested.

--

Bill F. McCutchen, Ph.D.

Associate Director

Texas AgriLife Research

Texas A&M University System

113 Jack K. Williams Administration Building

2142 TAMU College Station, TX 77843-2142

979-845-8488 Tel

979-458-4765 Fax

bmccutchen@tamu.edu

_____

From: Mike Cronan [mailto:mikecronan@tamu.edu]
Sent: Wednesday, February 03, 2010 8:23 AM
To: McCutchen, Bill; Avant, Bob; Simpson, Shay; Julie Svetlik
Subject: USDA Biotechnology Risk Assessment Grants (BRAG) Program

http://www.grants.gov/search/search.do?mode=VIEW&oppId=51498

The purpose of the USDA Biotechnology Risk Assessment Grants (BRAG) Program is to assist Federal regulatory agencies in making science-based decisions about the effects of introducing genetically engineered organisms into the environment. Investigations of effects on both managed and natural environments are relevant. Applications to the USDA BRAG Program must seek partial funding for a conference or address one of the following areas: 1) Identify and develop practices to minimize risks associated with genetically engineered organisms; 2) Research methods to monitor the dispersal of genetically engineered organisms; 3) Research to increase knowledge about the characteristics, rates, and methods of gene transfer that may occur between genetically engineered organisms, and related organisms; 4) Perform assessments to provide analysis which compares impacts of organisms modified through genetic engineering to other types of production systems; 5) Other areas of

research designed to further the purposes of the USDA BRAG program. Regular research proposals submitted to the BRAG program should be limited to a total budget of $400,000 (including indirect costs) for 2-5 years of support. Proposals on the priority areas of transformation-associated mutagenesis or environmental impacts of large-scale planting submitted to the BRAG program should not exceed $1 million. Proposals requesting more than $400,000 for a regular proposal and more than $1million for a priority proposal will be at risk of being excluded from NIFA review. Funds awarded will not exceed $400,000 for regular research proposals or $1 million for priority proposals. Project periods cannot exceed five (5) years, the statutory time limit. Conference proposal requests should be limited to a total budget of $20,000. See RFA for details.

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: TDavis@ag.tamu.edu; telacher@ag.tamu.edu; s-whisenant@tamu.edu; kmheinz@...
CC: cady@tamu.edu; NBPenn.EXTERNAL.Internet; JASlovacek.EXTERNAL.Internet; P...
Date: 1/10/2009 4:48 PM
Subject: USDA: AFRI RFPs & DEADLINES!

Dear Unit Heads,

In case you have not seen this announcement from USDA and as a reminder, please see the CSREES.USDA site below for the recent Agriculture and Food Research Initiative Competitive Grants Program FY 2009 Program Announcement. Apparently the actual RFA is expected to be released at the end of this month.
http://www.csrees.usda.gov/funding/afri/pdfs/program_announcement.pdf

Per details below, PLEASE NOTE on Page 5 and changed Letter of Intent (LOI) Date for Applied Plant Genomics CAP to 1/16/09. We are confirming that 1/16/65 is still official date for Plant Genomics LOI response.

Please forward to faculty as appropriate.

Thanks much,

Bill

****

Initial Announcement:

This is a Program Announcement (PA) for the Agriculture and Food Research Initiative (AFRI). AFRI combines elements of the former National Research Initiative (NRI) and Initiative for Future Agriculture and Food Systems (IFAFS) programs and is the new core competitive grant program for research, education, and extension. It is anticipated that the complete Request for Applications, which will contain the application submission instructions and be accompanied by required application forms, will be made available in early 2009 on the CSREES Web site and the Grants.gov Web site. This AFRI PA contains opportunities for support of research, education, and extension priorities.

This PA is being released prior to the passage of the Fiscal Year (FY) 2009 Agricultural Appropriations Act. The release of this PA is to inform the applicant community of upcoming research, education, and

extension opportunities through the AFRI program to fund issues critical to agriculture. The enactment of the FY 2009 Appropriations Act may impact the overall level of funding for the AFRI program. Hence, the Cooperative State Research, Education, and Extension Service (CSREES) reserves the right to amend, delete, or otherwise alter any programs. Depending on the FY 2009 Appropriations Act, CSREES may be issuing a supplemental RFA to address topics already identified in this PA. Updated information about the AFRI program will be made available on the CSREES Web site: http://www.csrees.usda.gov/funding/afri/afri.html.

CATALOG OF FEDERAL DOMESTIC ASSISTANCE: This program is listed in the Catalog of Federal Domestic Assistance under 10.310.

Dates:

All applications must be submitted via Grants.gov by Close of Business (COB), which is 5:00 p.m. Eastern Time (not local time), on the deadline date indicated in the program description (see Part II, E), as well as in Table 4 at the end of this announcement. Applications received after the deadline will not be considered for funding. Comments regarding this PA are requested within six months from the issuance of this notice. Comments received after this date will be considered to the extent practical. The FY 2009 AFRI RFA is intended to reflect the same due dates as the FY 2009 AFRI PA. In the event there are conflicting due dates, the RFA due dates will supersede the PA due dates.

Executive Summary:

The Department of Agriculture established the Agriculture and Food Research Initiative (AFRI) under which the Secretary of Agriculture may make competitive grants for fundamental and applied research, extension, and

education to address food and agricultural sciences (as defined under section 1404 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3103)), as amended, in six priority areas. The six priority areas include 1) Plant health and production and plant products; 2) Animal health and production and animal products; 3) Food safety, nutrition, and health; 4) Renewable energy, natural resources, and environment; 5) Agriculture systems and technology; and 6) Agriculture economics and rural communities.

In FY 2009, CSREES anticipates that approximately $190 million will be available for support of this program. Of this amount, no less than 30 percent will be made available to fund integrated research, education, and extension. This PA identifies research, education, or extension and integrated program objectives, eligibility criteria, and matching requirements for each type of project. Projects supported by AFRI will propose single function research, education, or extension projects or multi-functional integrated projects. Award types are: Research Grants, Education Grants, Extension Grants, Integrated Grants, Conference

Grants, Postdoctoral Fellowships, New Investigator Grants, and Strengthening Grants (see PART II(C) for more information).

PLEASE NOTE - AFRI PA / SIGNIFICANT MODIFICATION SUMMARY 12/22/2008:

Page 5 - changed Letter of Intent (LOI) Date for Applied Plant Genomics CAP to 1/16/09; changed LOI date for Integrated Solutions for Animal Agriculture to 3/16/09;

Page 76 - changed Application Deadline for Improving Food Quality and Value to March 31, 2009

Pg 130 - changed Improving Food Quality and Value Application Deadline to 3/31/2009; corrected Application Deadline for Protection of Managed Bees CAP in chart to reflect 5/1/2009.

Pgs. 29, 35, 37, and 97, Remove references to Plant Biology: Gene Function and Regulation as program will not be supported in FY 2009.

VIRALGENETICS

2290 Huntington Drive, Suite 100, San Marino, CA, 91108 Tel: (626) 334-5310, Fax: (626) 334-5324

December 9, 2009

Brett Cornwell
Commercializatio n Services Director
Office of the Vice Chancellor of Technology Commercializatio n
Texas A&M University System
800 Raymond Stotzer, Suite 2034A
College Station, TX 77843

Mr. Cornwell:

Viral Genetics Inc. was founded in 1994 to pursue the development of thymus nuclear protein (TNP), a series of peptides isolated from bovine thymic tissue with apparent antiviral and anticancer properties. We have raised over $20 million in funding and assembled a group of leading scientific and business advisors including Nobel Laureate and co-discoverer of the HIV virus, Dr. Luc Montagnier, Dr. Eric Rosenberg of Harvard Medical School, the head of intellectual property for Microsoft, Marshall C. Phelps, and the former head of IBM's global PC division, Richard M. Gerstner. Today we hold several dozen patents and technology rights with application in the treatment and detection of a wide range of infectious diseases, autoimmune conditions, cancer and other areas.

Over the years, we completed several clinical trials of a drug based on TNP, which ultimately led us to Dr. M. Karen Newell-Rogers and her research into targeted peptides. Our first partnering relationship with Dr. Newell-Rogers was centered on this research, and it now forms the foundation for the second generation of a range of therapeutic products now in development by us.

Following this we also partnered with Dr. Newell-Rogers on a broader body of work relating to her research in the field of metabolic disruptio n. Initially, we began pursuing this technology for its obvious applications to the treatment of drug-resistant tumors and other cancers. We formed a subsidiary to pursue this work and it is now in operation. Recently as you know we have also established that the very same underlying technology have tremendous potential value in the production of biofuels from algae through exponentially raising the yields of current production methods. We have been considering forming a subsidiary to pursue commercializat ion of this green energy area of research independently, since, like the cancer therapeutics, it requires a somewhat different approach and attracts a different type of investor than our other work.

The benefits of our research in the area of green energy production could be substantial. In short, the production of biodiesel from algae offers the potential of establishing complete and sustainable energy independence from volatile oil-producing nations. Current technology limits the economic value of this, however, and renders it largely

VIRALGENETICS

2290 Huntington Drive, Suite 100, San Marino, CA, 91108 Tel: (626) 334-5310, Fax: (626) 334-5324

impractical as of now. In our research to date, we have preliminarily discovered a method that could allow economical production of biofuels in a relatively short period of time.

It is our understanding that a position for Dr. Newell-Rogers may be offered at Texas A&M University. We would be most pleased to continue our very fruitful relationship with her should she elect to join Texas A&M, where she would no doubt make a valuable contribution. We would most certainly consider establishing a green energy subsidiary in Texas under these circumstances. Texas is certainly a more business-friendly and lower-cost environment than California, and we understand that there may in fact be various technology funding initiatives available. Further, as Texas is a hub of energy producing firms and other operations that would benefit from this work, there is a natural fit to commencing this work there.

Initially, our green energy operation would be focused on laboratory research but would likely move quickly into establishing commercial viability through pilot manufacturing projects and if successful full-scale operation. During this entire process there would be many opportunities for students of Texas A&M through on-the-job training, research projects, internships, and, upon larger scales, employment in green energy.

It is our belief that all of Dr. Newell-Rogers' work is of tremendous value. Her targeted peptide work represents truly a cutting edge development in immunological-based approaches to disease management through a fundamental rethinking of how our own bodies may actually accelerate or enable certain harmful conditions. Her work in metabolic disruption is unique in its establishment and uncovering of specific mechanisms of altering the internal energy production of targeted cells, which, as we have already stated, has application in a highly diverse number of fields, including green energy production. She would make a valuable asset to your faculty.

In sum, Dr. Newell-Rogers electing to join your institution would fit quite well with our current plan to separately establish this green energy program, and to continue our fruitful relationship with her.

Regards,

Viral Genetics, Inc.
Haig Keledjian
President

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: DBaltensperger@ag.tamu.edu
CC: JSlovacek.EXTERNAL.Internet
Date: 7/27/2009 11:52 AM
Subject: Wheat
Attachments: DRAFT TSTA McCutchen 1-30-08.ppt

--

Bill F. McCutchen, Ph.D.

Associate Director

Texas AgriLife Research

Texas A&M University System

113 Jack K. Williams Administration Building

2142 TAMU College Station, TX 77843-2142

979-845-8488 Tel

979-458-4765 Fax

bmccutchen@tamu.edu

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: DBaltensperger@ag.tamu.edu; JMGould@ag.tamu.edu; JEMullet.EXTERNAL.Inter...
CC: PLSchuerman.EXTERNAL.Internet; DKLunt.EXTERNAL.Internet; RVAvant.EXTERNA...
Date: 4/17/2010 10:18 PM
Subject:

All,

In anticipation of upcoming web meetings with Monsanto and Syngenta (and perhaps others), I would like to provide the following advice and objectives. It is important to keep the web calls to 2 hrs as well as leave plenty of time for Q/A. So in preparation and based on feedback there are two main objectives/areas to highlight during these initial discussions, to include:

1) RD technology with emphasis on and other species as well as a short overview of program.

2) Sugarcane RD platform with emphasis on scope and breadth (e.g. germplasm pool, # of finished varieties, transgenics, etc.) and a short overview on sorghum program (e.g. accession and germplasm pool).

Please contact me with any questions. Also, please remember we need to provide critical info within 2h time slot - these meetings are Introductory and a first step to hopefully more in-depth discussions and negotiations.

Thanks,

Bill

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: NBPenn.EXTERNAL.Internet; JASlovacek.EXTERNAL.Internet; AHelms.EXTERNAL....
Date: 3/31/2009 4:58 PM
Subject: Fw: Celebration of PETER MASCIA, Ceres, Inc. - Friday, 4/3

Not good news.

From: Holly Dungca
To: undisclosed-recipients
Sent: Tue Mar 31 16:45:15 2009
Subject: Celebration of PETER MASCIA, Ceres, Inc. - Friday, 4/3

To All,

This message (Richard Hamilton's email below) is being forwarded to those of you who have worked closely with Pete Mascia over the years. Due to health issues, I'm very sad to report it's unlikely he'll be returning to his duties at Ceres as Vice President, Quality and Regulatory Affairs.

We at Ceres are hosting a celebration of Pete's career at our office this Friday, April 3 at 9:00am PDT and you're all welcome to join. Knowing that many of you are located out of state, I wanted to offer the opportunity to submit some written sentiments, funny stories perhaps of working together, etc. I'm collecting them from our colleagues here at the office and will have them bound into a book for Pete.

If you'd like to participate in the sentiment book, please write or type onto unlined white copy paper, size 8x11 and either email to my attention – hdungca@ceres-inc.com – scan and email to me – or fax: 805-499-9017 (no cover sheet necessary). I must receive your sentiments no later than COB Thursday, April 2.

Should you choose to attend in person, please let me know. Pete and his wife, Mary, will be in attendance and would welcome the opportunity to visit.

Ceres, Inc.

1535 Rancho Conejo Blvd.

Thousand Oaks, CA 91320

Thank you!

Holly D. Dungca

Office Manager and Executive Assistant

Office: 805.376.6517 ~ Fax: 805.499-9017
hdungca@ceres.net <mailto:flast@ceres.net>

Ceres, Inc. ~ The Energy Crop Company®

1535 Rancho Conejo Blvd. ~ Thousand Oaks, CA 91320 USA
www.ceres.net

From: Richard Hamilton
Sent: Tuesday, March 31, 2009 9:09 AM
To: Ceres Global
Subject: Celebration of Pete's Career - Friday, 4/3

Dear All:

As many of you know, Peter Mascia has been dealing with a very difficult personal health situation for some time. As a result of his health situation, it is unlikely that Pete will be able to fully continue with his work at Ceres. Please join us for a celebration of Pete's career at Ceres on Friday, April 3rd at 9:00am in the company auditorium. I would like this to be as upbeat as possible, so please feel free to tell a funny anecdote or simply express your gratitude to Pete for his many contributions to Ceres as well as the mentoring role he has played for so many of us. For those of you who would like to take a few minutes to make some public remarks at that time, please let Holly know as soon as possible so that we can budget the time appropriately.

In addition, Holly will be collecting written sentiments from anyone who would like to submit them, and we will bind them together to present to Pete. Please try to make these submissions to Holly by the end of the day on Thursday using unlined 8x10 copy paper with either handwritten or typed sentiments.

Best,

Richard Hamilton

President & CEO

rhamilton@ceres-inc.com <mailto:rhamilton@ceres-inc.com>

Ceres, Inc.

1535 Rancho Conejo Boulevard

Thousand Oaks, CA 91320

tel. (805)376-6500 asst. (805)376-6517

www.ceres.net <http://www.ceres.net/>

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: DBaltensperger@ag.tamu.edu
Date: 3/31/2009 5:22 PM
Subject: Out of Office AutoReply: Celebration of PETER MASCIA, Ceres, Inc. - Friday, 4/3

I am out of the office through April 3rd. In case of emergency please contact Jackie at 979 845 7980.

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: ahelms@dsmail.tamu.edu;
CC: SPSamonte@ag.tamu.edu; RETabien@ag.tam...
Date: 3/12/2010 10:09 PM
Subject: Re: Bayer/AgriLife June 7/8 Follow-up

Jeff and Tom

I want to echo Adam's response for the group. We very much appreciated our time together to include the candid discussions to arrive at clear objectives.

Based on my memory of our meetings, the next steps are to:

* BASF to provide guidance on shipment of DNA from AgriLife's top 20 lines to re-confirm absence of transgenes. "35S" has already been shown to be negative, but these additional tests will further confirm purity - or lack thereof.
* AgriLife Research will take inventory of current lead material (seeds) that will be provided to BASF for testing and screening of gluphosinate tolerance at your facilities.
* Methods of transfer will be provide to AgriLife by BASF for proposed biological materials and in the interim we will work on a MTA.
* AgriLife will develop a executive summary / short proposal for Bayer's consideration. Focus will be on year 1 with emphasis on "saving" and facilitating this years objectives. Emphasis on developing back-crossing material, more robust herbicide trials, mapping populations, etc. Will include proposed RD for years 2-5 but with much less detail.
* Ted, Dante and Adam will be primary points of contact for AgriLife.
* ???. I know that I have missed many other bullets, but I am simply attempting to highlight some of the more salient points. PLEASE add.

Also, I see that we have a meeting set for June, but I would like to propose that we have one or more Conference/team calls in the interim. If you agree, I will ask Jackie and Brandy to arrange.

Thanks again and a productive visit.

Bill

From: Geoff Kneen
To: Helms, Adam
Cc: Avant, Bob; McCutchen, Bill; Brandy Morace <bmorace@aesrg.tamu.edu>; Jaklevic, Burnley E.; Baltensperger, David; Slovacek, Jackie; Judy Young <j-young@tamu.edu>; Hurley, Janie C.; Zak, Kendra; L. T. Wilson <lt-wilson@aesrg.tamu.edu>; Penn, Nancye B; Dante Tabien <retabien@ag.tamu.edu>; Omar Samonte <sosamonte@aesrg.tamu.edu>;

Sent: Thu Mar 11 18:47:19 2010
Subject: Re: Bayer/AgriLife June 7/8 Follow-up

Thanks Adam. I thought it was a good meeting and that we now have a good understanding on how to move forward.

I look forward to meeting you again in June.
Regards,
Geoff.

Dr. Geoff Kneen
Vice President, Special Projects
_____
Bayer CropScience
2 T.W. Alexander Drive
P.O. Box 12014
Research Triangle Park NC 27709
Tel: 001 919 549 2893
Fax: 001 919 549 3939
Mobile: 001 919 757 2063

"Helms, Adam" <ahelms@dsmail.tamu.edu>

03/11/2010 05:38 PM To
"Geoff Kneen" < "L. T. Wilson" <lt-wilson@aesrg.tamu.edu>, "McCutchen, Bill" <bmccutchen@tamu.edu>, "Omar Samonte" <sosamonte@aesrg.tamu.edu>, "Dante Tabien" <retabien@ag.tamu.edu>, "Baltensperger, David" <dbaltensperger@ag.tamu.edu>, "Avant, Bob" <bavant@tamu.edu>, "Hurley, Janie C." <JHurley@tamu.edu>, "Jaklevic, Burnley E." <Burnley.Jaklevic@tamu.edu>
cc
"Brandy Morace" <bmorace@aesrg.tamu.edu>, "Slovacek, Jackie" <j-slovacek@tamu.edu>, "Penn, Nancye B" <npenn@tamu.edu>, "Judy Young" <j-young@tamu.edu>, "Zak, Kendra" <kzak@tamu.edu>
Subject
Bayer/AgriLife June 7/8 Follow-up

Geoff & Tom,

I would like to thank you again for the meeting in Beaumont this past Tuesday. As a follow-up, I request that everyone please block the evening of June 7 for dinner and the day of June 8 to continue discussions on the glufosinate tolerant rice lines. Hopefully by this time, there will be no doubt that these lines are free of LibertyLink contamination allowing Bayer/AgriLife to enter into the next stage of collaboration for this technology.

In the mean time, if you have any questions or comments, please feel free to contact me at your earliest convenience.

Best,

Adam

Adam Helms
Project Manager
Corporate Relations
Texas AgriLife Research
Texas A&M University System
100E Centeq Building A, Research Park
1500 Research Parkway

College Station, Texas 77843-2583
mobile)
979-458-2677 (office)

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: ahelms@dsmail.tamu.edu;
CC: SPSamonte@ag.tamu.edu; RETabien@ag.tam...
Date: 3/12/2010 10:11 PM
Subject: Re: Bayer/AgriLife June 7/8 Follow-up

My apologies Geoff - spell check got me on your name!

From: McCutchen, Bill
To: ' Helms, Adam
Cc: Avant, Bob; 'bmorace@aesrg.tamu.edu' <bmorace@aesrg.tamu.edu>; Jaklevic, Burnley E.; Baltensperger, David; Slovacek, Jackie; 'j-young@tamu.edu' <j-young@tamu.edu>; Hurley, Janie C.; Zak, Kendra; 'lt-wilson@aesrg.tamu.edu' <lt-wilson@aesrg.tamu.edu>; Penn, Nancye B; 'retabien@ag.tamu.edu' <retabien@ag.tamu.edu>; 'sosamonte@aesrg.tamu.edu' <sosamonte@aesrg.tamu.edu>;

Sent: Fri Mar 12 22:09:27 2010
Subject: Re: Bayer/AgriLife June 7/8 Follow-up

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Bill

From: Geoff Kneen
To: Helms, Adam
Cc: Avant, Bob; McCutchen, Bill; Brandy Morace <bmorace@aesrg.tamu.edu>; Jaklevic, Burnley E.;

Baltensperger, David; Slovacek, Jackie; Judy Young <j-young@tamu.edu>; Hurley, Janie C.; Zak, Kendra; L. T. Wilson <lt-wilson@aesrg.tamu.edu>; Penn, Nancye B; Dante Tabien <retabien@ag.tamu.edu>; Omar Samonte <sosamonte@aesrg.tamu.edu>;

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Regards,
Geoff.

Dr. Geoff Kneen
Vice President, Special Projects
_____
Bayer CropScience
2 T.W. Alexander Drive
P.O. Box 12014
Research Triangle Park NC 27709
Tel: 001 919 549 2893
Fax: 001 919 549 3939
Mobile: 001 919 757 2063

"Helms, Adam" <ahelms@dsmail.tamu.edu>

03/11/2010 05:38 PM To
"Geoff Kneen" "L. T. Wilson" <lt-wilson@aesrg.tamu.edu>, "McCutchen, Bill" <bmccutchen@tamu.edu>, "Omar Samonte" <sosamonte@aesrg.tamu.edu>, "Dante Tabien" <retabien@ag.tamu.edu>, "Baltensperger, David" <dbaltensperger@ag.tamu.edu>, "Avant, Bob" <bavant@tamu.edu>, "Hurley, Janie C." <JHurley@tamu.edu>, "Jaklevic, Burnley E." <Burnley.Jaklevic@tamu.edu>
cc
"Brandy Morace" <bmorace@aesrg.tamu.edu>, "Slovacek, Jackie" <j-slovacek@tamu.edu>, "Penn, Nancye B" <npenn@tamu.edu>, "Judy Young" <j-young@tamu.edu>, "Zak, Kendra" <kzak@tamu.edu>
Subject
Bayer/AgriLife June 7/8 Follow-up

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In the mean time, if you have any questions or comments, please feel free to contact me at your earliest convenience.

Best,

Adam

Adam Helms
Project Manager
Corporate Relations
Texas AgriLife Research
Texas A&M University System
100E Centeq Building A, Research Park
1500 Research Parkway
College Station, Texas 77843-2583
(mobile)
979-458-2677 (office)

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: ahelms@dsmail.tamu.edu; m-delisa@tamu.edu
CC: PGibbs@ag.tamu.edu; NBPenn.EXTERNAL.Internet; DKLunt.EXTERNAL.Internet; ...
Date: 5/21/2010 5:55 PM
Subject: Re: Scott's/AgriLife Master Agreement DRAFT

Thanks Monica and Adam. Also, we will likely need to engage OGC early concerning any potential branding of products that may result from sponsored RD.

Bill

_____

From: Monica Delisa <m-delisa@tamu.edu>
To: Helms, Adam
Cc: Baltensperger, David; Avant, Bob; McCutchen, Bill; Nessler, Craig; Slovacek, Jackie; Lunt, David; Penn, Nancye B; Gibbs, Pete
Sent: Fri May 21 17:43:03 2010
Subject: RE: Scott's/AgriLife Master Agreement DRAFT

Adam,

The terms outlined here for naming really take this piece out of a gift realm. A true gift allows some preferences but in general the giver cannot receive anything significantly tangible in return. (like the rights to use the Texas A&M name in advertising.)

The graduate assistantships could function from the gift side. We will probably need to separate out the gift components into a different agreement if any of them are true gifts.

I'm glad we have the Tuesday morning meeting set. We definitely all need to sit down together to go over this.

Have a good weekend!

Monica

From: Helms, Adam [mailto:ahelms@dsmail.tamu.edu]
Sent: Friday, May 21, 2010 5:20 PM
To: Schuerman, Peter L.; Gilliland, Diane M.; Monica Delisa
Cc: Baltensperger, David; Avant, Bob; McCutchen, Bill; Nessler, Craig; Slovacek, Jackie; Lunt, David;

Penn, Nancye B; Gibbs, Pete
Subject: Scott's/AgriLife Master Agreement DRAFT
Importance: High

Please find attached the first of Scott's inputs to the MSRA (they turned this around in one day). Please note they have added a section for Naming and Endorsements as well as other sections. As I have not been involved with previous negotiations of MSRA's, what are the next steps?

Thanks and have a good weekend.

Adam

Adam Helms

AgriLife Research Corporate Relations

(mobile)

979-458-2677 (office)

From: Turner, Kevin [mailto:Kevin.Turner@Scotts.com]
Sent: Friday, May 21, 2010 4:54 PM
To: Helms, Adam
Cc: Garascia, Jeffrey; Caldwell, Bruce
Subject: RE: Scott's/AgriLife Master Agreement DRAFT

Hi Adam, I am sorry we weren't able to get together on the phone with David today. Is there a time Monday morning that Bruce and I could set up a call in conference call with you and David? We would like to discuss our ideas on getting started on the research. We can probably parallel track the initial research with writing the agreement. Bruce may have mentioned that we have some thoughts on initiating work with the rain-out shelter and possibly starting to set up a run-off and leaching site.

Please look over the attached draft. Still very rough, but I think it shows you how we envision the agreement shaping up.

Kevin Turner

From: Helms, Adam [mailto:ahelms@dsmail.tamu.edu]
Sent: Thursday, May 20, 2010 12:16 PM
To: Garascia, Jeffrey; Turner, Kevin; Caldwell, Bruce
Cc: Baltensperger, David; Avant, Bob; McCutchen, Bill; Gilliland, Diane M.; Schuerman, Peter L.; Shayna Spurlin; Slovacek, Jackie; Zak, Kendra; Holland, L. Diane; Judy Young; Nelson, Michelle
Subject: Scott's/AgriLife Master Agreement DRAFT
Importance: High

Jeff, Bruce & Kevin,

Please find attached the DRAFT Master Agreement between Scott's and AgriLife. This contract does not include language for naming rights but we will work to get you that language soon. We look forward to receiving your input on this agreement. If you have any questions or comments, please feel free to contact me at your earliest convenience.

Sincerely,

Adam

Adam Helms

Project Manager

Corporate Relations

Texas AgriLife Research

Texas A&M University System

100E Centeq Building A, Research Park

1500 Research Parkway

College Station, Texas 77843-2583

mobile)

979-458-2677 (office)

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: TMILLER@ag.tamu.edu; RDLacewell.EXTERNAL.Internet; RVAvant.EXTERNAL.Inte...
Date: 5/19/2009 3:31 PM
Subject: RE: DOE/Biomass Merit Reviewer Survey

Thanks Bill

--

Bill F. McCutchen, Ph.D.
Associate Director
Texas AgriLife Research
Texas A&M University System
113 Jack K. Williams Administration Building
2142 TAMU College Station, TX 77843-2142
979-845-8488 Tel
979-458-4765 Fax
bmccutchen@tamu.edu

-----Original Message-----
From: B. L. Harris [mailto:bl-harris@tamu.edu]
Sent: Tuesday, May 19, 2009 1:27 PM
To: Baltensperger, David; Avant, Bob; McCutchen, Bill; Lacewell, Ron;
Travis Miller
Subject: Fwd: DOE/Biomass Merit Reviewer Survey

An opportunity.

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: WLRooney.EXTERNAL.Internet; JEMullet.EXTERNAL.Internet; RVAvant.EXTERNAL...
CC: AHelms.EXTERNAL.Internet; CMiller@ag.tamu.edu; DBaltensperger@ag.tamu.ed...
Date: 5/21/2009 7:27 PM
Subject: Re: Chevron/Ceres

I would second that bet. Soil and Crop could confirm.

Bill

----- Original Message -----
From: Simpson, Shay
To: Spurlin, Shayna; Avant, Bob; Mullet, John E.
Cc: McCutchen, Bill; Gilliland, Diane M.
Sent: Thu May 21 19:24:00 2009
Subject: Re: Chevron/Ceres

I don't know for sure, but I am willing to bet the unallocated funds are to go to Jurg Blumenthal for the added task.

----- Original Message -----
From: Spurlin, Shayna
To: Avant, Bob; Mullet, John E.
Cc: McCutchen, Bill; Simpson, Shay; Gilliland, Diane M.
Sent: Thu May 21 18:49:10 2009
Subject: RE: Chevron/Ceres

FYI ... I apologize if this is a duplicate email, but I can't remember if I replied to this yet or not; it's all starting to run together a bit.

I discussed this with Diane Gilliland, and she was kind enough to look up the Ceres accounts for us.

The answer to Dr. Mullet's question regarding being able to use previously committed but unspent funds is "no." Even though the money is not expended yet, the funds were obligated and they have to be spent on that project if they were used as part of a required match. The government also says we can't spend the same dollar twice, so we can use those previously committed but unspent funds as match on another project. Those darn bureaucrats; just no fun!

Now, from what we could tell regarding unobligated Ceres funds, it appears the base account contains 4 "subaccounts" with unobligated Ceres funds:
Mullet, Rooney, Klein, and some funds that have never been allocated. The total of all these is about I don't know the specific breakdown except to say that the completely unallocated money is only and the rest is comprised of the 3 researchers' Ceres funds.

I believe this covers the basics. For more details on the specific Ceres money, etc., Diane has access to those accounts and can provide more insight into their use.

Thanks,
Shayna

-----Original Message-----
From: Avant, Bob

Sent: Friday, May 08, 2009 9:44 AM
To: Mullet, John E.; Spurlin, Shayna
Cc: McCutchen, Bill; Simpson, Shay
Subject: Re: Chevron/Ceres

Shayna,

Bob Avant
(Cell)

----- Original Message -----
From: John Mullet <jmullet@tamu.edu>
To: Avant, Bob
Cc: McCutchen, Bill
Sent: Fri May 08 09:41:49 2009
Subject: Re: Chevron/Ceres

Bob,

Do you have someone who can determine if the above is possible (maybe Peter?).

John

On May 8, 2009, at 9:34 AM, Avant, Bob wrote:

> Bob Avant
> (Cell)
>
> ----- Original Message -----
> From: John Mullet <jmullet@tamu.edu>
> To: Avant, Bob
> Cc: McCutchen, Bill; Bill Rooney <wlr@tamu.edu>; Stelly_David Stelly
> <stelly@tamu.edu>
> Sent: Fri May 08 09:22:43 2009
> Subject: Re: Chevron/Ceres
>
> Bob,

>

> I think that we might want to consider separating the ARPA-E
> opportunity/discussion from the larger and more complex decision on
> -
> IP. In other words, as David Stelly suggested, why can't AgriLife
> pursue ARPA-E funding to expand development of echnology without
> making any final commitment on IP licensing, letting the value of this
> technology grow?
>
> If we follow this scenario, then we need to develop an ARPA-E proposal
> that will be of interest to Ceres with constraining
>
> Option-1: Develop an ARPA-E proposal focused on
> Technology per se.
>
> Option-2: Develop an ARPA-E proposal that focuses on two linked
> innovative technologies; and Technology.
> Technology has developed to the point where we are
> ready to use the technology for Germplasm Profiling and establishing a
> that will accelerate the identification
> of useful for both Ceres/AgriLife energy sorghum hybrid
> development and development. Funding for development per
> se would also be requested. This concept is described in the attached
> slide. Ceres would see the value of germplasm profiling/trait
> discovery for their and they would also get a
> first hand look at advances in over the next two years of ARPA-E
> funding.
>
> I think Bill Rooney and David Stelly should decide if they want to
> focus ARPA-E solely on If so, then Bill is the logical point of
> contact to Ceres to get an acceptable ARPA-E proposal worked out.
> This may require giving some IP options to Ceres in exchange for
> matching support.
>
> If Bill and David think it makes sense to develop an ARPA-E proposal
> that links development of the and
> the development of then Bill and I could contact Ceres
> to get an outline of this integrated project set up.
>
> Of course there may be other good options to consider.
>
> Thanks,
>
> John
>
>
>
>
>
>
>
>
>
> On May 6, 2009, at 6:10 PM, Avant, Bob wrote:
>
>> Bill,
>> I just talked to Michelle re Michelle said that her
>> direction from corporate was that represented longer term

>> prospects and that they weren't prepared to participate.
>>

>>
>> Walter Nelson told me that they wanted to partner with us on ARPA. I
>> think we need to wrap up the executive summary including Ceres and
>> send to Ceres for their review. Needs to be submitted to ARPA by
>> end of May.
>> Bob Avant
>> (Cell)
>

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: RVAvant.EXTERNAL.Internet
CC: Brian.Schmitt@tamu.edu; PLSchuerman.EXTERNAL.Internet; SSimpson.EXTERNAL...
Date: 5/6/2009 6:38 PM
Subject: Re: Chevron/Ceres

Bob,

Thanks. This is both bad and good news. Chevron's not interested so we need to understand what Ceres alone and/or another partner might place a potential value.

We need help from Stelly, Rooney, Gould and Mullet on what a 1-3-5 year RD budget and strategy might resemble.

In the mean time we are seeking guidance on FTO and IP considerations from outside counsel.

Thanks again,

Bill

----- Original Message -----
From: Avant, Bob
To: McCutchen, Bill
Cc: 'wlr@tamu.edu' <wlr@tamu.edu>; Mullet, John E.; 'stelly@tamu.edu' <stelly@tamu.edu>; Baltensperger, David; Simpson, Shay
Sent: Wed May 06 18:10:22 2009
Subject: Chevron/Ceres

Bill,
I just talked to Michelle re . Michelle said that her direction from corporate was that represented longer term prospects and that they weren't prepared to participate.

Walter Nelson told me that they wanted to partner with us on ARPA. I think we need to wrap up the executive summary including Ceres and send to Ceres for their review. Needs to be submitted to ARPA by end of May.
Bob Avant
(Cell)

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: DBaltensperger@ag.tamu.edu
Date: 5/7/2009 7:43 AM
Subject: RE: Chevron/Ceres

Understood. Have you spoken to Rooney and/or Stelly about his participation?

Bill

--

Bill F. McCutchen, Ph.D.
Associate Director
Texas AgriLife Research
Texas A&M University System
113 Jack K. Williams Administration Building
2142 TAMU College Station, TX 77843-2142
979-845-8488 Tel
979-458-4765 Fax
bmccutchen@tamu.edu

-----Original Message-----
From: David D Baltensperger [mailto:dbaltensperger@ag.tamu.edu]
Sent: Wednesday, May 06, 2009 10:25 PM
To: McCutchen, Bill
Subject: Re: Chevron/Ceres

Bill,

As we relook it might be a good time to make sure we get Dr. Jessup included.

David D. Baltensperger
Professor and Head
Soil and Crop Sciences
Texas A&M University
2474 TAMU
College Station, Texas 77843-2474

Phone 979-845-3041
Fax 979-845-0456
Email dbaltensperger@ag.tamu.edu

>>> "McCutchen, Bill" <bmccutchen@tamu.edu> 5/6/2009 6:38 PM >>>
Bob,

Thanks. This is both bad and good news. Chevron's not interested so we need to understand what Ceres alone and/or another partner might place a potential value.

We need help from Stelly, Rooney, Gould and Mullet on what a 1-3-5 year

RD budget and strategy might resemble.

In the mean time we are seeking guidance on FTO and IP considerations from outside counsel.

Thanks again,

Bill

----- Original Message -----
From: Avant, Bob
To: McCutchen, Bill
Cc: 'wlr@tamu.edu' <wlr@tamu.edu>; Mullet, John E.; 'stelly@tamu.edu' <stelly@tamu.edu>; Baltensperger, David; Simpson, Shay
Sent: Wed May 06 18:10:22 2009
Subject: Chevron/Ceres

Bill,
I just talked to Michelle re . Michelle said that her direction from corporate was that epresented longer term prospects and that they weren't prepared to participate.

Also, they are not allowed to participate in any proposal funded by Stimulus ie ARPA.

Walter Nelson told me that they wanted to partner with us on ARPA. I think we need to wrap up the executive summary including Ceres and send to Ceres for their review. Needs to be submitted to ARPA by end of May.
Bob Avant
(Cell)

From: David D Baltensperger
To: Blumenthal, Juerg M; Rhodes, Carol
Date: 5/21/2009 10:02 PM
Subject: Fwd: Re: Chevron/Ceres
Attachments: Re: Chevron/Ceres

Juerg,

Do you claim it?

David D. Baltensperger
Professor and Head
Soil and Crop Sciences
Texas A&M University
2474 TAMU
College Station, Texas 77843-2474

Phone 979-845-3041
Fax 979-845-0456
Email dbaltensperger@ag.tamu.edu

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: DBHays@ag.tamu.edu; RVAvant.EXTERNAL.Internet; r-loeppert@tamu.edu; WPay...
CC: PGibbs@ag.tamu.edu; KZak.EXTERNAL.Internet; NBPenn.EXTERNAL.Internet; JS...
Date: 4/5/2010 5:51 PM
Subject: Re: Dahlberg/Gates

Thanks Adam. I thought the meeting was productive and we need to differentiate ourselves to include INTSORMIL as key component of an A-Z with sorghum (DNA to storage) and select topics. We shouldn't forget about addressing Ed Hammond as well. Again, plan is to have "final" DRAFT agenda and itinerary in hands of Gates Foundation no later than Friday April 16th for a mid-May meeting.

Thanks,

Bill

From: Helms, Adam
To: McCutchen, Bill; Baltensperger, David; Bill Rooney <wlr@tamu.edu>; Gary C Peterson <g-peterson1@tamu.edu>; Jaroy Moore <JMoore@ag.tamu.edu>; sethmurray@tamu.edu <sethmurray@tamu.edu>; w-payne@tamu.edu <w-payne@tamu.edu>; 'r-loeppert@tamu.edu' <r-loeppert@tamu.edu>; Avant, Bob; 'Dirk Hays' <DBHays@ag.tamu.edu>
Sent: Mon Apr 05 17:25:56 2010
Subject: Dahlberg/Gates

Everyone,

Bob Avant spoke with Jeff Dahlberg this afternoon, and he is very supportive of our idea to move forward with Gates and would like to participate in the meetings as well.

As for follow-up items from the meeting, I have constructed an initial straw-man agenda, and am waiting from additional input from Monica Delisa regarding the Gates meeting this past fall. I hope to have this to everyone tomorrow. I will be out of the office the remainder of the week, but am available by mobile phone.

Best,

Adam

Adam Helms

Project Manager

Corporate Relations

Texas AgriLife Research

Texas A&M University System

100E Centeq Building A, Research Park

1500 Research Parkway

College Station, Texas 77843-2583

mobile)

979-458-2677 (office)

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: Doug.Jones@chevron.com; RVAvant.EXTERNAL.Internet
CC: MYLong@chevron.com; MELISSA.PATANGIA@chevron.com; TMiller@ag.tamu.edu; D...
Date: 2/24/2010 7:07 PM
Subject: Re: Capture Meeting

All,

Just to add and this is probably obvious... The IP capture will be focused on novel which could be an annual or perennial crop. There is precedence for such novel advancements and protection -

Bill

From: Avant, Bob
To: Jones, Doug M <Doug.Jones@chevron.com>
Cc: Schuerman, Peter L.; McCutchen, Bill; Simpson, Shay; Baltensperger, David; Travis Miller <td-miller@tamu.edu>; Patangia, Melissa <MELISSA.PATANGIA@chevron.com>; Long, Michelle Y. (YLON) (MYLong) <MYLong@chevron.com>
Sent: Wed Feb 24 18:52:46 2010
Subject: RE: Capture Meeting

Doug,

We have a conflict on the 22nd that involve several of the critical faculty but can meet 19-21. Do we need to find another set of dates?

Bob Avant

Program Director

Texas AgriLife Research

979/845-2908

(Cell)

bavant@tamu.edu

From: Jones, Doug M [mailto:Doug.Jones@chevron.com]
Sent: Wednesday, February 24, 2010 11:44 AM
To: Avant, Bob
Cc: Schuerman, Peter L.; McCutchen, Bill; Simpson, Shay; Baltensperger, David; Travis Miller; Patangia, Melissa; Long, Michelle Y. (YLON) (MYLong)
Subject: RE: Capture Meeting

Hello Bob:

It appears for the attendees from Chevron, having the meeting on April 22, 2010 will work out the best to ensure full attendance. A meeting notice has been sent to the attendees on the Chevron side.

The high level meeting agenda is as follows:

9:00 – 12:00 Discussions of

12:00 - 12:30 Working Lunch

12:30 – 3:00 Discussions of

I have arranged for visitors badges for the following people to be at the front desk of the Briarpark office at 8:45 am on 4/22/10:

Peter Schuerman

Bill McCutchen

Shay Simpson

David Baltensperger

Travis Miller

Dick Auld

Bob Avant

I will meet you all at the front desk at that time. Please let me know should I need to modify this list.

For the sake of smoothly beginning our discussion of Invention Disclosures to be created, we believe it would be helpful to have a list of the learnings and results to date for the research. Please ensure submission of this list by at least 4/15/10 so that we will have adequate preparation time.

Please let me know should you require further information or details.

Enjoy the rest of your day!

Doug

Doug Jones
Chevron Technology Ventures
Biofuels and Hydrogen

3901 Briarpark Drive, BP605
Houston, TX 77042
phone 713-954-6857

From: Long, Michelle Y. (YLON) (MYLong)
Sent: Wednesday, February 24, 2010 11:01 AM
To: Avant, Bob
Cc: Schuerman, Peter L.; bmccutchen@tamu.edu; shay-simpson@tamu.edu; dbaltensperger@ag.tamu.edu; Travis Miller; Jones, Doug M; Patangia, Melissa; PSchuerman@tamu.edu
Subject: RE: Capture Meeting

Bob,

Thank you for the quick turnaround and response. I agree that the Researchers are critical to the development of an IP Strategy (as are the IP folks). Thus, I agree with hosting the session here at Briarpark April 20 and 21st (or that week). I will ask Doug to ensure our folks are available and then schedule it on the calendars.

As discussed it would be a full day of “brainstorming” . My expectation is that this group, along with Peter

and Melissa, deliver IP Disclosure documents (draft form) the expected deliverables to include IP disclosure forms (draft) for the following:

· (and associated results from the project)

· (and associated results from the project)

Once we have confirmed the date on our end, Doug will forward the logistics, meeting notice, etc.

Michelle Y. Long
Manager, Feedstock and Logistics
mylong@chevron.com

Chevron Technology Ventures
Biofuels and Hydrogen
3901 Briarpark, BRP 608
Houston,TX 77042
Tel/Fax:713 954 6053/6016
Cell: 925-548-7845

From: Avant, Bob [mailto:bavant@tamu.edu]
Sent: Wednesday, February 24, 2010 10:52 AM
To: Long, Michelle Y. (YLON) (MYLong)
Cc: Schuerman, Peter L.; bmccutchen@tamu.edu; shay-simpson@tamu.edu; dbaltensperger@ag.tamu.edu; Travis Miller
Subject: Capture Meeting

Michelle,

David, Peter and I visited about the IP capture meeting for There are a number of conflicts that would make it difficult to get the necessary project leads to the meeting. David and I would be happy to meet on the 5th, but I think it would be more productive to engage the researchers. I would suggest that we set the IP capture meeting after the next quarterly meeting. Maybe set aside an additional day for this. Would either the April 6-7, or 20-21 work for a quarterly meeting/IP meeting? We could have it at CS or Houston.

Bob Avant

Program Director

Texas AgriLife Research

979/845-2908

(Cell)

bavant@tamu.edu

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To: Doug.Jones@chevron.com; RVAvant.EXTERNAL.Internet
CC: MYLong@chevron.com; MELISSA.PATANGIA@chevron.com; TMiller@ag.tamu.edu; D...
Date: 2/24/2010 7:25 PM
Subject: Re: Capture Meeting

Sorry, the same holds with . Also, likely PVP and/or utility patent applications for our advanced lines of .

From: McCutchen, Bill
To: Avant, Bob; 'Doug.Jones@chevron.com' <Doug.Jones@chevron.com>
Cc: Schuerman, Peter L.; Simpson, Shay; Baltensperger, David; 'td-miller@tamu.edu' <td-miller@tamu.edu>; 'MELISSA.PATANGIA@chevron.com' <MELISSA.PATANGIA@chevron.com>; 'MYLong@chevron.com' <MYLong@chevron.com>
Sent: Wed Feb 24 19:06:56 2010
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phone 713-954-6857

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Sent: Wednesday, February 24, 2010 11:01 AM
To: Avant, Bob
Cc: Schuerman, Peter L.; bmccutchen@tamu.edu; shay-simpson@tamu.edu; dbaltensperger@ag.tamu.edu; Travis Miller; Jones, Doug M; Patangia, Melissa; PSchuerman@tamu.edu

Subject: RE: Capture Meeting

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Michelle Y. Long
Manager, Feedstock and Logistics
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3901 Briarpark, BRP 608
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Bob Avant

Program Director

Texas AgriLife Research

979/845-2908

(Cell)

bavant@tamu.edu

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: gerik@brc.tamus.edu; lt-wilson@aesrg.tamu.edu; JMGould@ag.tamu.edu; JALa...
CC: PGibbs@ag.tamu.edu; KSMITH@ag.tamu.edu; EGSMITH@ag.tamu.edu; LBoleman.EX...
Date: 9/25/2009 8:06 AM
Subject: CPRIT and ETF Briefing Reminder & TTVN/LiveStreaming Information
Attachments: CPRIT ETF Save the Date.pdf; TIPS_Location-Map.pdf

Unit Heads,

Please see the note below concerning CPRIT and ETF Briefing Reminder as well as the ability to connect via TTVN and/or Live Streaming Video. Please forward this information to your faculty and staff.

Subject: Cancer Prevention and Research Institute of Texas (CPRIT) and Emerging Technology Fund (ETF) Briefing

Date, time, and location: Monday, September 28, 1:00pm to 4:00pm in the auditorium at the Texas A&M Institute for Preclinical Studies building located at 800 Raymond Stotzer Parkway, College Station, Texas. (see attached map & directions).

If you cannot attend the meeting in person, please join via live webcast or one of the TTVN locations. The webcast can viewed at http://ttvn.tamu.edu/streams - Channel 20 or join via TTVN at one of the following locations:

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Bill F. McCutchen, Ph.D.

Associate Director

Texas AgriLife Research

Texas A&M University System

113 Jack K. Williams Administration Building

2142 TAMU College Station, TX 77843-2142

979-845-8488 Tel

979-458-4765 Fax

bmccutchen@tamu.edu

From: Ravey, Linda
Sent: Thursday, September 24, 2009 5:15 PM
To: A&M System CEOs; A&M System Chief Research Officers; A&M System CAOs (Chief Academic Officers); A&M System CAOs - Provosts; Green, Eleanor; Miller, Kate C; Johnson, Charles; Newton, Joseph; Palmer, Douglas J; Cocanougher, Benton; Cook, Colleen; Strawser, Jerry R; Vanegas, Jorge
Cc: Ellison, Mark M.; 'Theresa Maldonado'; Woods, Lisa; Wakefield, Troy P.; 'Tony Hockenberry'; Armbrust, Lloyd W.
Subject: CPRIT and ETF Briefing Reminder & TTVN/LiveStreaming Information

To: CEOs, Provosts, Chief Academic Officers, Chief Researcher Officers, and Deans

(Please forward to your Faculty and Staff)

Subject: Cancer Prevention and Research Institute of Texas (CPRIT) and Emerging Technology Fund (ETF) Briefing

Date, time, and location: Monday, September 28, 1:00pm to 4:00pm in the auditorium at the Texas A&M Institute for Preclinical Studies building located at 800 Raymond Stotzer Parkway, College Station, Texas. (see attached map & directions)

Just a reminder that you are invited to attend a briefing regarding CPRIT and ETF. The purpose of the briefing is to provide you with an opportunity to meet key staff members, learn about the legislative intent, and how to apply for funding for both programs. The CPRIT briefing is from 1:00pm to 2:30pm and the ETF briefing is 2:30pm to 4pm. Small meeting rooms will be available for you to meet one on one with both ETF and CPRIT staff regarding your specific projects.

If you cannot attend the meeting in person, please join via live webcast or one of the TTVN locations. The webcast can viewed at http://ttvn.tamu.edu/streams - Channel 20 or join via TTVN at one of the following locations:

Canyon - Hastings Library, Room 54

Commerce - AGIT Building, Room 205

Corpus Christi - Corpus Christi Hall, Room 152

Dallas - Baylor College of Dentistry, Room 618 Board Room

Galveston - Williams Library, 108B Conference Room

Houston - Institute of Biosciences and Technology, Room 202A

Kingsville - Cornett Library, Room 301

Kingsville - College of Pharmacy, Room 247

McAllen - South Texas Center, Room 148

Laredo - Killam Library, Room 253

Texarkana - Aikin Building, Room 170

Stephenville - Administration Building, Room 208

Temple - IRM, C126

Temple - Medical Education Center, Room 213

The briefing is being recorded and can be viewed at www.tamus.edu/cprit-etf 24 hours after the event.

For more information on both programs please refer to their websites.

www.cprit.state.tx.us <http://www.cprit.state.tx.us/> -The Cancer Prevention and Research Institute of Texas is the state agency mandated to (1) create and expedite innovation in the area of cancer research and in enhancing the potential for a medical or scientific breakthrough in the prevention of cancer and cures for cancer; (2) attract, create, or expand research capabilities of public or private institutions of higher education and other public or private entities that will promote a substantial increase in cancer research and in the creation of high-quality new jobs in this state; and (3) develop and implement the Texas Cancer Plan <http://www.cprit.state.tx.us/texascancerplan/index.html> .

www.emergingtechfund.com <http://www.emergingtechfund.com/> -The ETF, created by the Texas Legislature at the urging of Governor Rick Perry, provides Texas with an unparalleled advantage by expediting the development and commercialization of new technologies, and by recruiting the best research talent in the world. Matching and commercialization funds coupled with additional federal and outside investments mean new technology is emerging in Texas.

Please call me or Theresa Maldonado with any questions.

Thanks,

Mark M. Ellison

Associate Vice Chancellor for Economic Development

Office of Technology Commercialization

The Texas A&M University System

979-458-2635 (direct line)

MEllison@tamu.edu

Sent on behalf of Mark Ellison by Linda L. Ravey

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: roger.osburn@okstate.edu; chad.godsey@okstate.edu; DBaltensperger@ag.tam...
Date: 3/18/2009 12:05 PM
Subject: Re: Summary of TX/OK Peanut Breeders Meeting

Thank you Mark.

----- Original Message -----
From: Mark Burow <mburow@tamu.edu>
To: Schuerman, Peter L.; Chamberlin, Kelly <Kelly.Chamberlin@ARS.USDA.GOV>; Michael Baring <m-baring@tamu.edu>; Dr. Charles Simpson <c-simpson@tamu.edu>; Hassan Melouk <hassan.melouk@ars.usda.gov>; Hurley, Janie C.; Steve Brown <rsbrown@ag.tamu.edu>; Dr. Jaroy Moore <j-moore@tamu.edu>; McCutchen, Bill; Baltensperger, David; chad.godsey@okstate.edu <chad.godsey@okstate.edu>; Roger Osburn <roger.osburn@okstate.edu>
Sent: Wed Mar 18 11:54:23 2009
Subject: Summary of TX/OK Peanut Breeders Meeting

I am sending the following summary of the meeting. Michael and Kelly may be out of the office this week (and I was out the previous week), so I have not had a chance for them to review this, but Peter has asked for the results of the meeting, so I though that I needed to send this out ASAP.

Summary of the TX/OK Peanut Breeders Meeting
March 6, 2009
Stephenville, TX

The meeting was held to discuss the possibility of release of ARSOK-R1 and ARSOK-S1.

Attending:
Michael Baring, Peanut Breeding, Texas AgriLife Research, College Station, TX
Mark Burow, Peanut Breeding and Genetics, Texas AgriLife Research, Lubbock, TX
Kelly Chamberlin, Research Biologist, USDA-ARS, Stillwater
Chad Godsey, Cropping Systems Specialist, Oklahoma State University, Stillwater, OK
Hassan Melouk, Research Plant Pathologist, USDA-ARS, Stillwater, OK
Roger Osburn, Oklahoma Foundation Seed Stocks, Stillwater, OK

Regarding ARSOK-R1:
In the 2008 meeting, it was concluded that ARSOK-R1 frequently shelled better than Tamrun OL07, but a second year of evaluation was needed to determine whether ARSOK-R1 was superior to Tamrun OL07 in this regard, and could be justified as being distinct from and superior to Tamrun OL07, and worthy of being released.

In 2008 Oklahoma field trials, ARSOK-R1 shelled statistically better than Tamrun OL07 in 6 of 9 tests, and was numerically but not statistically significantly better in the other 3 tests. In 2008 Texas field trials, ARSOK-R1 shelled statistically better than Tamrun OL07 in 8 of 23 tests, and was numerically but not statistically better in some other tests. It was decided that by pooling of shelling data in the same regions of each state, it may be possible to obtain a stronger

test for difference in shellout to try to make a stronger case for release. The rationale for using this as a justification for release is that the price that growers receive for peanuts is based in part on shellout.

In yield, ARSOK-R1 and Tamrun OL07 were equivalent in all 9 Oklahoma 2008 tests, and in 17 of 17 TX 2008 tests where there was no Sclerotinia blight present. In the remaining 6 TX tests with Sclerotinia present, Tamrun OL07 statistically outyielded ARSOK-R1 in all 6 tests. Therefore, there was no advantage in yield or Sclerotinia resistance in ARSOK-R1.

In the meeting, it was decided to write up ARSOK-R1 for release, under the suggested name Red River Runner, and to be submitted to both the OK and TX plant release committees as a joint release. The justification for release would be that ARSOK-R1 has better shellout that TamrunOL07, and this would improve farmers' income. The release proposal would focus primarily on utility of ARSOK-R1 in Oklahoma, but possibly with potential use in TX.

Regarding ARSOK-S1:
ARSOK-S1 yielded better than OLin in 4 of 10 tests from 2005 to 2008, and shelled better in 3 of 10 tests. It was decided that another year of evaluation would be needed to decide whether ARSOK-S1 is superior to OLin. Experiments will be repeated in OK and TX in 2009.

--
Mark Burow
Associate Professor, Peanut Breeding and Genetics
Texas AgriLife Research
Texas A&M System
and
Texas Tech University
Department of Plant and Soil Science

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From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: MAHussey.EXTERNAL.Internet; CNessler.EXTERNAL.Internet; DBaltensperger@a...
Date: 2/16/2010 10:22 AM
Subject: Re: Tillman

Just got off phone with Tillman. Not good news - not moving.

----- Original Message -----
From: David Baltensperger <DBaltensperger@ag.tamu.edu>
To: McCutchen, Bill
Sent: Sun Feb 14 20:25:58 2010
Subject: Tillman

Bill,

Any contact?

David Baltensperger
Professor and Head
Soil and Crop Sciences
Texas A&M University
2472 TAMU
College Station
Texas 77843-2474

979-845-3041

From: "McCutchen, Bill" <bmccutchen@tamu.edu>
To: DBaltensperger@ag.tamu.edu; JMoore@ag.tamu.edu; JAL...
CC: JYoung@ag.tamu.edu; JSlovacek.EXTERNAL.Internet
Date: 10/3/2009 8:08 AM
Subject: Re: Confidential: Monsanto/Water

Thanks for the note and progress.

From: Helms, Adam
To: McCutchen, Bill; Avant, Bob; Juan Landivar <jalandivar@ag.tamu.edu>; Jaroy Moore <JMoore@ag.tamu.edu>; Baltensperger, David; Hake, Kater D.
Cc: Slovacek, Jackie; 'Judy Young' <j-young@tamu.edu>
Sent: Fri Oct 02 17:06:34 2009
Subject: Confidential: Monsanto/Water

Bob, Kater and I had great teleconference today with Ty Vaughn and Eric Cerny regarding the alignment of respective research in water for cotton. This was based off of the Drought Tolerance executive summary Juan proposed earlier this year (pdf attached). Eric Cerny and I fleshed out a one pager for what a "water summit' would look like and this is also attached. We all agreed that AgriLife, Cotton Inc and Monsanto needed to come together to the table and try to develop a holistic research approach for cotton between our organizations.

I would ask that you look over the executive summary and add your comments and edits to the draft Water Summit document. Monsanto is opening a new breeding station in Lubbock November 4/5. Looking at calendars, I do not think we can try and meet in Lubbock the first week of November due to ASA-CSA-SSSA meetings as well as other conflicts. However, calling around, I have identified potentially November 18-20. I think an itinerary would be to fly out the evening of Wednesday the 18th, meetings the 19th and return Friday morning. Please let me know ASAP if this will work for your schedule.

Kater/Bob, if there is anything I have missed, please add it in.

Best,

Adam

Adam Helms

Project Manager

Corporate Relations

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