

**AGRITECH**

Buckwheat: A novel pseudocereal to feed 6b

To feed the ever-increasing population has been always great deal of interest for agriculturists. Once green revolution saved millions of lives from the mouth of death.....

**AGRITECH Pg2**

Soybean, the miracle bean

Soybean (*Glycine max L.*) is one of the most important oil-seeds crop in the world. It is also known with various other names like 'miracle bean', 'wonder bean', 'golden bean', 'king of bean' and people say that it is a golden gift of nature to humanity in terms of



health benefits. The soybean seeds contain 25 per cent oil and 45 per cent good quality protein and 35 per cent carbohydrates. Recently, it has been.....

**ENERTECH Pgs**

Energy crisis in Pakistan

**SELF-SUFFICIENCY** in energy is the assurance to excel any country's economy. According to an international analysis, the oil and gas reserves will get finished by the second half of this current century. For that reason,

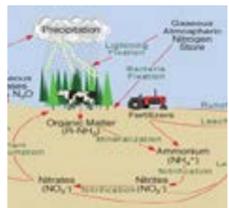


to attain self-sufficiency, alternative energy resources are being explored. There are 929 billion tons approx. coal reserves available in the world whose 40 per.....

**ENVIROTECH Pgs**

N-fertilizers: Becoming an environmental plague

**PRODUCTION** of nitrogenous fertilizers were initiated when Fritz Haber and Carl Bosch in 1909 turned the nitrogen gas (N<sub>2</sub>) in the air into ammonia (NH<sub>3</sub>)



through an industrial process. This conversion was a major breakthrough not only in industrialization but also in agriculture sector because prior to this conversion.....

**AGRITECH Pgs**

Problems of post-harvest of fruit and vegetables in Pakistan

PAKISTAN have a very fertile and variety of soil. It has variation in its soil and climatic conditions, which is very favourable for the production of fruits, vegetables, flowers and other crops. Mostly high valued fruits, vegetables and crops are produced in our country. Pakistan, ranging from tropical to temperate, allows growing 40 different kinds of vegetables and 21 types of fruits. Major vegetables grown include potato, onion, chilli, melons, cucumber, tomato, turnip, okra and.....

## Pakistan set to develop Karakoram Pamir Biosphere Reserve

**STAFF REPORT IBD:** Pakistan is fast heading towards developing the Karakoram Pamir Biosphere Reserve situated in Gilgit-Baltistan which would be the third Biosphere Reserve in Pakistan having a tremendous potential for scientific research on climate change, mountain livelihood and ecosystems. However, the local communities would have to play an important role in biodiversity conservation.

Earlier, Pakistan has only two Biosphere Reserves - The Lal Sohanra National Park located in Cholistan Desert which was approved by UNESCO in 1977 and the second one is the Juniper Forest of Ziarat, believed to be the second largest juniper forest of its kind in the world, which was approved in May 2013.

Recently a two-day 5th meeting of the South and Central Asia Man and Biosphere Network (SACAM) has been organised by the Ministry of Science and Technology, and UNESCO in Islamabad.

On the occasion, Federal Minister for Science and Technology Zahid Hamid, who was the chief guest, highlighted the primary theme of the meeting 'Harmonising Community Livelihood with Biodiversity Conservation'. "We have to use the most suitable and appropriate method of harmonising biodiversity conservation by fulfilling the need of the local communities," he maintained.

About the second theme of the meeting 'Biodiversity and Emerging Global Issues in Biosphere Reserves', the minister warned about the global warming and resultant climate change which is a very serious phenomenon the whole world is facing, affecting all the socio-economic sectors, including agriculture and food production, water resources, ecosystem, biodiversity,



infrastructure and human health.

He particularly mentioned that Pakistan being a developing country is in a similar but critical situation. It is ranked at 135th position in carbon dioxide emissions which damage the environment. Yet, it is faced with severe climate changes and has been ranked third in the list of most vulnerable countries to climate change, he explained.

Fresh studies reveal that glaciers in the eastern and central regions of the Himalayas appear to be retreating at rates that have accelerated over the past century.

The minister said that he was certain that the recommendations of the experts will be of great benefit to the government of Pakistan in implementing plans for the management of

its Biospheres Reserves. This would also be in line with the national agenda being implemented by the Ministry of S&T for the establishment of a sound and sustainable science and technological research base.

Speaking at the occasion, Federal Secretary for S&T Kamran Ali Qureshi highlighted the importance of the event. He appreciated the role of the national and international organisations for the public awareness regarding the global issues of climate change and global warming.

In his address, Co-Chairman National MAB Committee/Chairman PSF Dr. Khalil Ahmed Ibpoto said that the world community has recognized that without the change of direction towards sustainable development, life would not be worth living

for future generations.

Dr. Ibpoto said that the National MAB Committee in collaboration with stakeholders has been able to reactivate the MAB Programme in Pakistan.

He said that in one year it has been able to get designation of one biosphere reserve, i.e. Ziarat Juniper Biosphere Reserve, from UNESCO, submitted nomination of another biosphere i.e. Karakoram Pamir Biosphere Reserve and reviewed status of already declared Biosphere Reserve, the Lal Sohanra Biosphere Reserve.

The PSF Chairman said this shows the commitment and engagement of PSF in finding solutions to these complex questions through modern approaches.

## Promotion of science & tech to ensure national progress

**STAFF REPORT IBD:** Pakistan Science Foundation Chairman Dr. Khalil Ahmed Ibpoto has said that nobody can deny the vitality of science in socio-economic development.

"PSF not only encourages promotion of science and technology activities across Pakistan but also pleads for the reasonable use of science for the benefit of society," he said this while highlighting the importance of celebrating the World Science Day, at a ceremony arranged by the PSF in this connection.

He said that the PSF is organizing different activities such as essay and poster competitions and science caravan exhibitions across the country to celebrate the day and highlight importance of science and technology.

Eminent scientist Dr. Ash-



faq was the chief guest at the event. The other personalities who attended the function included Secretary S&T Kamran Qureshi, UNESCO Country Director K.K. Nagatta, QAU VC/Rector IUI Dr. Masoom Ysainzai.

Dr. Ibpoto appreciated the UNESCO collaboration with PSF in arranging different activities regarding celebration of the World Science Day. He said since declaration of the day PSF, MoST celebrate this day on regular basis. He stressed upon the students to develop their passion for science and adopt it as a career.

## USAID pledges to continue agri scholarships plan

**STAFF REPORT RWP:** The United States has renewed its commitment to continue working very closely with the HEC of Pakistan to implement the USAID funded Merit and Needs Based Scholarship Programme for deserving students.

USAID Assistant Administrator Office of Pakistan and Afghanistan, Larry Sampler, said this at the PMAS-AAUR during a recently held interactive session with the USAID funded merit and needs based scholarship programme beneficiaries.

He said the US is proud to

have invested in higher education sector in Pakistan over the last five decades.

In his remarks, HEC ED Director Prof Dr Mukhtar Ahmed expressed his appreciation for US support for the education sector in Pakistan.

He informed that a total of 3,000 talented and needy students could get scholarship under this program from getting higher education in 29 government and private universities of the country adding that 50 per cent of the scholarships were designated for women in the upcoming expansion of the project.

## Experts for more coop to tackle climate change

**STAFF REPORT IBD:** Climate change and its impact on biodiversity is a burning issue the world over and being taken seriously at the UN and other world forums. The efforts for strengthening science and technology cooperation among the ECO countries must be strengthened to protect the globe from the negative impacts of the climate change.

These views were expressed by scientists/experts at a recently held two-day consultation meeting of experts on climate change and biodiversity. The event was organized by ECOSF in collaboration with Ministry of Science and Technology, Climate Change Division, ECO Secretariat, Tehran and ECO-TEST. The eminent experts on the subject from all ECO members states including Pakistan attended the meeting and discussed the issues related to climate change and biodiversity in the region.

President ECOSF Dr. Manzoor Soomro told the media said that the meeting unanimously decided to establish an ECO Network of Experts in Climate Change



and Biodiversity, publish a book on "Biodiversity of ECO Region" and launch collaborative research among the ECO member states. Secretary MoST Kamran Ali Qureshi recognizing the importance of the event said in his inaugural speech that climate change.

## Dr. Atta wins 'Einstein Professorship'

**STAFF REPORT IBD:** Prof. Dr. Attaur Rehman, an icon from Pakistan in science and technology sector, has recently visited China and delivered lectures at various international level universities.

Dr. Attaur Rehman was invited by the Chinese Academy of Sciences (CAS) which has a top level international programme for academic exchange, the "EINSTEIN PROFESSORSHIP".

The Institute of Chemistry Chinese Academy of Sciences (ICCS), appointed Prof. Atta-ur-Rahman, former Coordinator General of COMSTECH and presently the President of Pakistan Academy of Sciences to the Einstein Professorship this year. The Einstein Professor is invited to China for conducting a lecture tour across China for several weeks in top Chinese educational institutions.

## Water paucity major challenge to agriculture sector

**STAFF REPORT IBD:** A recently held two-day water conference highlighted problems, which the country's prime agriculture sector is likely to face due to drying up of irrigation resources in future, if steps were not taken



to improve supplies across the country.

Speakers at the conference titled as "Water Co-operation in Action - From the Global to the Grassroots" proposed immediate steps to overcome the growing water scarcity.

The experts proposed ways to meet the challenges and highlighted the problems of water shortage, which the country continues to face and feared the dwindling resources with changing climate will further shorten if immediate

measures were not taken.

Chairperson Hissar Foundation, Zohair Ashir, Senior Advisor to the Global Water Partnership at UNDP, Khalid Mohtadullah, Country Coordinator WSP, World Bank, Farhan Sami and Chair Aca-

## Pakistan's first hybrid car introduced

**STAFF REPORT KHI:** Indus Motor Company (IMC), the maker of different models of Toyota and Daihatsu vehicles in Pakistan, has unveiled most awaited Hybrid Vehicle "Toyota Prius" in Pakistan.

IMC has introduced the car which has been customized for Pakistani road conditions. The current generation Prius is globally known for its iconic shape and advanced hybrid technology which enables its customers to achieve excellent fuel efficiency and enhanced performance with very little or almost negligible emissions.

"It is indeed a great milestone, not only in the history of IMC, but, of the entire nation. For more than 2 decades, the IMC is focused on delivering customer delight and in continuation of our heritage we bring to Pakistan," said Parvez Ghias, CEO Indus Motors.

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- Telephone/network protection

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Technical Editor **Tajammul Hussain**  
Bureau Chief Karachi **Syed Ali Raza**  
Vol. IV, No. 49  
**www.technologytimes.pk**  
E-mail: info@technologytimes.pk

**Head Office**  
House No. 81, Service Road (W),  
7th Avenue, G-6/1-1, Islamabad.  
Phones: +92 51 2607219  
+92 333 638 3241

**Bureau Office**  
C-89, Sherton Heights,  
Abul Hassan Ispahani Rd, Karachi.  
Phones: +92 321 242 6088  
+92 333 57 55 926

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**EdTweet**

**Modernising the wool collection process**

As other potentially rich development sectors have fallen prey to the shallow or non-serious approach of decision makers or what one can link it to the financial constraints, the wool sector in Pakistan spells a similar tale. The woolen sector plays an important role in linking the rural economy with the manufacturing industry, represented by small, medium and large scale units. Sindh and Balochistan have rich potential in wool sector as majority of the people in rural areas of the provinces are dependent on sheep keeping for getting wool and meat. However, the wool collection losses are estimated up to 20 per cent which can be linked majorly to the existing faulty shaving process as in this exercise major share of wool is left over body of sheep in addition to injuries to the animal. Available data shows that sheep have increased in numbers by more than 41 per cent during the period from 1986 to 1996. However, profitability on the other hand does not jact up due to the lack of knowledge of breeding, management, nutrition, disease control measures, drenching against endo-parasitic and dipping against ecto-parasitic diseases. The Kooka, Kachhi and Pak-Awasi breeds in Sindh are the most promising for wool production. As a remedy, the modern wool development centres need to be established at taluka/union council level. They can serve as training places for wool development, people can get technical assistance not only about veterinary extension services but also for securing maximum quality wool. In Sindh the present population is about 23.5 million sheep from which 6.12 million kg wool is obtained. It can be doubled by providing modern techniques, promoting research & development activities. In addition, proper guidance should be given to the local people about having specific breeds for having quality wool. Since wool collection mechanism is being done at the local level where people have no modern techniques; there is a desperate need to spread a network of training in addition facilities by providing modern machinery. It is an established fact that application of modern techniques and scientific approach multiplies quality as well as quantity of production. This would increase wool quality and the people can get a better return which they could not have due to old and faulty wool collection processes. The relevant authorities need to come up with a serious approach to help the wool industry adopt a regular system of quality control. This whole process demands reshuffle in government priorities as it would contribute a lot in increasing the wool quality.

**EdMail**  
editorial@technologytimes.pk

**Reducing industrial pollution**

**THE CITY** District Government of Lahore has recently launched a crackdown on polluting industries located in residential areas and sealed as many as seven such factories on Bund Road and Daroghawala. The factories burn tyres to melt the iron which is later used to produce steel. However, such burning of tyres causes severe environmental pollution in the city. Apart from public health issues, the burning of tyres in factories has certain aspects which are mentioned here for consideration by the authorities concerned. Used tyres are an environmental hazard and if not disposed of properly may provide abode to parasites with dangerous diseases. Limiting the burning of tyres could be a possible solution to the reduction of environmental pollution. The City District Government of Lahore may explore the possibilities with the help of the Lahore Chamber of Commerce and Industry, as well as with other experts. Some of these factories were established at a time when the location was outside the municipal limits. Over the time, the city has been urbanised and, in the process, engulfed many areas which were previously not within the city's boundaries. Often, in such situations, it is said that the industries located in the residential areas may be shifted through administrative orders to places outside the city or to some planned industrial estates. Such actions are easier said than done. The provincial departments, the CDGL, the LCCI, the workers and the public have to pay attention

to these issues. A number of incentives such as cheap land, industrial infrastructure, including all utilities, roads and financial assistance, may have to be provided to relocate the industrial capacity as well as the workers. Lahore is not the only city faced with a large number of polluting industries located in residential areas. This perhaps is true of all major cities in the country. The problem needs a proper solution which may be possible if the authorities concerned and all other stakeholders are willing to work together in a positive framework for the greater good of the country and its people.

M. CHAUDHRY  
Karachi

**Hazards of ozone depletion**  
**THE** purpose of great discovery of Mario Molina and F. Sherwood Rowland is to just highlight the harmful effects of CFC, the combinations of chlorine (C), fluorine (F) and carbon (C) atoms, which are being used in multiple things such as refrigerators and aerosol. The ozone layer protects the earth from dangerous ultraviolet radiation (UV), which can cause mutations. In humans a depleted ozone layer would likely mean higher rates of skin cancer, cataracts and immune system problems. Further, an increase in UV radiation could affect plants and marine ecosystems which could, in turn, trigger other ecological changes. The UN should take serious action against the production of CFCs and it should be internationally banned.

SAJJAD BALOCH  
Turbat

**AGRITECH**

**Buckwheat: A novel pseudocereal to feed 6b people**

By Mohsin Tanveer, Hassan Munir and Ehsanullah

**TO FEED** the ever-increasing population has been always great deal of interest for agriculturists. Once green revolution saved millions of lives from the mouth of death by introducing short stature and fertilizer responsive crops, however, problems encountered during post revolution era included deterioration of natural resources and environmental concerns. Alas! decrease in yield potential of those crops, climate change and inevitable abiotic stresses again taken us to alpha, where we worked so hard to ensure food security. However, nature has blessed us with numerous blessings to cope with food security problems. Buckwheat is one of those blessings, botanically belongs to Chenopaceae and recognized as pseudocereal. Botanical description of the plant depicted it as short, wide spreading plant bearing brought green, heart shaped leaves with small white flowers. Buckwheat can be a reliable cover crop in summer to fit a small slot of warm season for establishment. It establishes quickly, which suppresses summer weeds. Buckwheat plants grow quickly, beginning to produce seed in about 6 weeks and ripening at 10 to 11 weeks. They grow 30 to 50 inches (75 to 125 cm) tall. Currently, various reports substantiated that the buckwheat has played a significant role in diets worldwide, mainly in Asia and Eastern Europe. Its first starring role as a cultivated crop appears circa 4000 B.C. in the Balkan region of Europe, but it's thought to have truly taken hold inland in Southeast Asia and from there spread to Central Asia, Tibet, the Middle East, and Europe. There are accounts that Japan's Emperor Gensho ordered buckwheat cultivation throughout the entire country to prepare for dry weather in 722. In US, buckwheat first hitched a ride with European colonists and, since that time, can be found growing in just about every corner of the globe.

Nutritional value:  
Buckwheat is a good source of essential nutrients, vitamins, energy, and fiber to

humanity for approximately 8,000 years. It encloses higher levels of zinc, copper and manganese than other cereal crops; therefore bioavailability of these essential mineral nutrients is quite high. Having buckwheat in your diet can help you stay fit, nimble, and healthy. Further, it also provides high degree of protein (Crude protein 18 per

cent), second highest after oat. Buckwheat is not only protein enriched while it also has lysine (an amino acid). Before you pin a gold star on buckwheat for its perfect test score, it's important to note there is some evidence that the protein digestibility in humans can be somewhat low. While this makes it a less than ideal source of protein for

growing children or anyone with digestive tract issues, it's perfectly fine for the grown-ups of the world. Besides, humans are meant to have a varied, omnivorous diet, so it's good to obtain protein from a variety of sources. Its starch contents contain 25 per cent, amylose and 75 per cent amylopectin. Buckwheat contains a glucoside called rutin, a

flour is being studied for possible use as a functional ingredient in foods to reduce plasma cholesterol, body fat, and cholesterol gallstones.

Uses:  
Its seed are similar to seeds of sunflower with hard outer covering (hull). Inside part of seed/ grain is white in color, can be employed as buckwheat flour. Buck wheat

(noodles) were widely made from buckwheat before it was replaced by wheat. The difficulty of making noodles from flour with no gluten has resulted in a traditional art developed around their manufacture by hand. Buckwheat groats (hulled or crushed grain) are commonly used in Western Asia and Eastern Europe. The porridge was common, and is often considered the definitive peasant dish. It is made from roasted groats that are cooked with broth to a texture similar to rice. Groats were the most widely used form of buckwheat worldwide during the 20th century, eaten primarily in Russia, Ukraine and Poland, called "grechka" in Russian. Buckwheat pancakes, sometimes raised with yeast, are eaten in several countries. Similar pancakes were a common food in American pioneer days. They are light and foamy. The buckwheat flour gives them an earthy, mildly mushroom-like taste. In Ukraine, yeast rolls called hrechanyky are made from buckwheat. Buckwheat flour is also used to make Nepali dishes like "dhedo" and "kachhamba".

Farina (flour) made from groats are used for breakfast food, porridge, and thickening materials in soups, gravies, and dressings. In Korea, buckwheat starch is used to make a jelly called memilmuk. It is also used with wheat, maize or rice in bread and pasta products. Buckwheat contains no gluten and can consequently be eaten by people with coeliac disease or gluten allergies. Many bread-like preparations have been developed. Buckwheat is a good honey plant, producing a dark, strong monofloral honey.

**Adaptability:**  
**Climatic Requirement**  
Buckwheat is a temperate crop require moist and cool environment. It can also be grown at far north and at high altitudes because its growing period is short and also require low temperature for early developmental stages.

**Soil Requirement**  
Buckwheat can be grown

on wide range of soil types and fertility levels. It has ability even to grow on less fertile and poorly drained soils than other grains. It is often better suited than most other grains on newly cleared land, on drained marsh land, or on other rough land with a high content of decaying vegetative matter. Buckwheat has higher tolerance to soil acidity than any other grain crop. It is best suited to light to medium textured, well-drained soils such as sandy loams, loams and silt loams. It does not grow well in heavy, wet soils or in soils that contain high levels of limestone. It grows well where alfalfa or red clover would not. On soils high in nitrogen, lodging may occur and cause a reduction in yield. Once lodged, a buckwheat plant does not return upright. Crusting on clay soils may result in an unsatisfactory stand because of poor seedling emergence.

**Seed Germination**  
Various researches indicated that buckwheat requires a temperature range of 45° to 105°F to germinate. Initially at harvesting, fresh seeds exhibited less germination however can be increased if stored for 30 to 60 days. The seed may retain its viability for several years, but seed that is no more than one year old is best to use for planting. Buckwheat plants will emerge from the soil 3-5 days after planting. The time required is influenced by depth of seeding and the temperature and moisture content of the soil.

**Future research thrust**  
As burgeoning population and uncertainty in ensuring food security put forth a great interest for scientists to introduce this crop under local conditions of Pakistan. It is dire need of time to introduce this new crop under our local conditions to increase yield and secure food security. An exact production technology is required for its successful cultivation. Dr. Hassan Munir and his team members are trying to give a suitable production technology package so that can be transferred to farmers' field.

By Muhammad Atif Farooq

**AGRITECH**

**Soybean, the miracle bean**

Soybean (Glycine max L.) is one of the most important oilseeds crop in the world. It is also known with various other names like 'miracle bean', 'wonder bean', 'golden bean', 'king of bean' and people say that it is a golden gift of nature to humanity in terms of health benefits.

The soybean seeds contain 25 per cent oil and 45 per cent good quality protein and 35 per cent carbohydrates. Recently, it has been observed that soybean became an important world commodity. It is easy and cheap source of protein. This protein source is obtained from environment friendly crop as this crop can obtain nitrogen from atmosphere through the bacteria present in the roots of this great bean plant. The ability to fix atmospheric nitrogen in soil thus does not deteriorate soil health.

Soybean is a plant which originated in Asia especially in China. Now this miracle bean is cultivated all over the world mainly for its high level of protein and oil contents, therefore, it can play an important role in fulfillment of the oil needs of human beings. The protein obtained from soybean is fed mainly to livestock. Besides this, those essential amino acids which our body cannot synthesize, we mainly get those from foods that we consume.

Usually animal's proteins have those essential amino acids which are required by our body but the interesting fact is that soybean protein has eight essential amino acids. So, soybean can be a good choice for those who love to be vegetarians. Apart from proteins and carbohydrates, they can provide a significant amount of iron, vitamin C, thiamine, folic acid, calcium, magnesium, po-

and has, therefore, not been able to achieve a respectable position among the oilseed crops. Its cultivation remained limited to a very small acreage and showed a decreasing trend. In 1997-98 area under soybean cultivation was 6350 hectares

functioning and help to control the cholesterol level, blood sugar and body fats.

- Drinking soybean milk everyday improves intelligence (because soybean contains a large number of the "lecithin", important part of hu-

young children. If a baby is allergic to cow milk, soybean milk is a best substitute.

- Soybean contains isoflavones and protease inhibitor that minimizes the risk of developing certain cancers. For example endometrial cancer, prostate cancer and evidence show that it is the best thing to prevent breast cancer.
- Food and Drug Administration, USA recommend that daily use of 25 gram soy-protein may reduce the risk of heart disease as this protein source is slow in saturated fat and cholesterol.
- Soybean seeds contain iron and zinc which plays an important role to prevent elder people from deafness.
- Soybean oil is also used as mosquito repellent.
- Proteins obtained from soybeans contain eight essential amino acids. It is considered as 'plant meat'. It is best substitute to those who are allergic to animal meat.
- Biodiesel is also produced from soybean oil with a ratio of 80% diesel and 20% soybean oil. This biodiesel has the ability to use in buses and tractors of up to 600 horse power.
- In beauty salons, soybean oil is being used for massage. Anti aging cream is made from soybean protein along with Dead Sea material. This cream enhances elasticity of the delicate skin around the eyes and also protect against oxidation damage.

Due to increase in human population, the demand of edible oil is increasing whereas production is decreasing every year on per-capita basis. Pakistan is facing severe shortage of edible oil production locally. The local edible oil production is deficient and does not fulfill the rising demand of population. It is very doleful that Pakistan with agrarian economy and still deficit in edible oil. According to Economic Survey of Pakistan 2011-12, Pakistan is the 3rd largest importer of edible oil in the world, the import bill of edible oil reached \$ 2.611 billion during 2010-11.

Government must encourage domestic production of oilseed crops to preserve foreign exchange reserves. It is necessary to announce such policies which can help in the increase in cultivation of oilseeds. Soybean cultivation has potential to minimize the decreasing production trend of edible oil. The weak policies of government and lack of farmer's interests are main cause of failure of soybean cultivation in country. It is duty of every agricultural scientist to find out the right way that can help to increasing production of domestic edible oil in country.

Soybean has two growing season i.e. spring (last week of January - 1st week of February) and autumn (mid July-1st week of August). Soybean spring season will be going to start and this is the best time to propel the farmers to cultivate soybean and made Pakistan a self-sufficient country in edible oil production.

The writer is M. Sc. (Hons.) Agronomy, Department of Agriculture Faisalabad, Pakistan. He can be reached at satif\_farooq786@yahoo.com>



**Due to increase in human population, the demand of edible oil is increasing whereas production is decreasing every year on per-capita basis. Pakistan is facing a severe shortage of edible oil production. The local edible oil production is deficient and does not fulfil the rising demand of population. It is very doleful that Pakistan with agrarian economy and still deficit in edible oil. Pakistan is the 3rd largest importer of edible oil in the world**

In United States, soybean cover an area of 30 million hectares (FAO: 2012). Other than United States, the major soybean growing areas are Brazil, China, Argentina, Indonesia, Korea and Japan. In Pakistan, soybean has suffered a setback

which has decreased to 128 hectares in 2010-11. The statistics predict the same trend to follow in the years to come.

Now we talk about some beneficial effects of soybean on human health.

- Soybean raises our immune

man brain).

- Help prevent from Alzheimer's disease, strengthen human tissues and organs. It can even whiten the human skin.
- Soybean facilitates normal growth and development in



## Pakistan starts first 'knowledge hub'

**STAFF REPORT KHI:** Without paying a penny, people can now avail education from Harvard University, a Ivy League institute, at anytime and from anywhere in Pakistan and across the world. All you have to do is just pay for the degree.

Through its integrated and massive open online courses, the Latif Ebrahim Jamal (LEJ) National Science Information Centre at the University of Karachi intends to make courses from Massachusetts Institute of Technology, Harvard, Stanford and other colleges free for everyone.

The aim of this initiative is to provide students in Pakistan the same education as those available to students from prestigious universities. The initiative, said former HEC chairperson Dr Attaur Rehman, has the potential to change the landscape of higher education in Pakistan and the developing world.

"While enormous effort

undergoes to build and fund a large number of colleges, universities and technical institutions across Pakistan, a major bottleneck is the unavailability of highly qualified faculty," said Dr Rehman.

He along with Dr Muhammad Iqbal Choudhary, the di-



rector at KU's International Centre for Chemical and Biological Sciences, was speaking at a press conference.

Dr Rehman explained that despite the technological revolution brought by the Internet, its role in the realms of institutionalised education through the availability of online courses was far from clear till the last few years.

## PC users fast moving to mobile internet option

**STAFF REPORT IBD:** Pakistani users are shifting their Internet into a new gear in 2014, which will be the year mobile Internet overtakes desktop Internet, reveals a recently conducted new survey sponsored by Google.

While desktop is dominant with 91 per cent owning a PC at home, 45 per cent also own a smartphone or tablet. About 18 per cent cite

phones and tablets, and anticipated launch of 3G services. Internet-capable feature phones are expected to continue to play an important role, too.

"We think 2014 is the year mobile Internet overtakes desktop Internet in Pakistan. Consumers are really starting to embrace smartphones and tablets," said Tania Aidrus, Manager for Asian Growth



the latter as their primary device. Mobile devices are gaining momentum: 86 per cent use PCs to access the Internet daily, 77 per cent use smartphones, 73 per cent use feature phones and 59 per cent use tablets daily, the survey says.

This trend follows a decline in the prices of smart-

Markets, Google Asia Pacific.

The study revealed that home is the preferred location for Internet access — even for mobile-only users, who prefer to use their home wi-fi connection. The average hours spent on the Internet are 2.25 hours a day on weekdays and 3 hours a day on weekends.

## SDPI gives awards to environ poster competition winners

**STAFF REPORT IBD:** Sustainable Development Policy Institute has recently held prize distribution ceremony of inter-school poster/painting competition which was attended a large number of schools and colleges.

The competition on "Chemicals Impacts on Environment and Children Health - Beware of Mercury" was targeted at two levels: junior level (class 5th - 8th) and senior level (class 9th - 12th, including O & A levels students).

"The competition encouraged youth to reflect upon the issue of chemicals and their impacts on environment and health. It is expected that the contest would lead to increased awareness and garner greater support for protection of environment," remarked an official of the event organizers.

Around 30 schools in Rawalpindi and Islamabad

participated in the competition, where about 400 entries were submitted to the organizers.

According to the details, Yashaf Nadeem from Islamabad College for Girls won first prize, Kanza Mussadiq from PAEC College Nilore got second prize, Khadija Noor, also from Islamabad College for Girls got the third prize, Uzair Munir and Roha Sikaner from Beaconhouse Margalla Campus got 4th & 5th positions likewise.

In junior section, Maheen Kamran from Brookfield ISSC Campus won first prize, Fatimah from Khaldunia High School won second prize, Minahil Naveed of Beaconhouse Civil Lines Rawalpindi won the third prize while Manahil Bahaarwa from Khaldunia High School & Sulaiman Qazi from Beaconhouse School System won the 4th & 5th prize.

## UVAS exhibition, job fair attract large visitors

**STAFF REPORT LHR:** The University of Veterinary and Animal Sciences (UVAS) Lahore has recently arranged an educational-industrial exhibition and job fair on its City Campus.

Lahore Chamber of Commerce and Industry President Sohail Lashari inaugurated the EIE & job fair while Big Birds Groups of Companies Chairman Abdul Basit was special guest while Vice-Chancellor Prof Dr Talat Naseer Pasha, a large number of industry representatives and students were present on the occasion.

Over 60 companies set up their stalls at the fair, displayed their products and

services and registered university students, who are nearing graduation, for jobs.

"The university is working in close collaboration with the industry since day one for the benefit of both the university students and industries and this job fair is one example of such collaboration in which over 60 companies participated actively," said the VC. Speaking as chief guest, Sohail Lashari said other universities should follow the UVAS as a model for arranging such beneficial exhibitions and fairs. Abdul Basit said it is also a good opportunity for students to connect with the industry and find career placements.

## PTA seizes various illegal gateways

**STAFF REPORT LHR:** As part of its ongoing drive against the grey telephony in the country, the Pakistan Telecommunication Authority (PTA) in collaboration with the Federal Investigation Agency (FIA) has jointly conducted three successful raids in different areas of Lahore and seized various equipments used for this illegal telephony activities.

According to details, the PTA during this raid arrested a person who was running these illegal gateway exchanges.

Illegal voice termination activity was detected in Ghushan-e-Lahore and Tariq Garden areas and raids were conducted after investigations. Illegal Voice over Internet Protocol (VoIP) exchanges comprising eleven gateways and other equipment were confiscated.

## S. Asian states for tackling environmental issues

**STAFF REPORT IBD:** The economies of South Asian countries are growing at a rapid rate, but they are also facing severe common environmental problems, which, however, can be tackled effectively only through un-



hindered collaboration and cooperation at the regional level.

These views were expressed by experts at the recently three-day 13th meeting of the Governing Council of SACEP in Islamabad.

"Strengthened regional efforts need to focus on a range of response options and instruments to address

these challenges of environmental degradation and climate change-induced disasters, such as floods that are common problem of the South Asia region," said Federal Minister for Science and Technology, Zahid Hamid, on the occasion.

However, regional partners need to emphasize the realization for increasing responsibilities and greater cooperative efforts by all stakeholders, he said.

Director-General of the SACEP, S.M.D.P. Anura Jayatilake, said that the SACEP is the first inter-governmental forum in the world. Where all South Asian countries come together to support SACEP initiatives and programmes during 30 years of its existence since 1981.

Joint Secretary of the Ministry of Earth Sciences, India, Shri Anand Singh Khaki, in his address said that SACEP and SASP have got immense progress.

## Agri experts for reducing rising use of pesticides

**STAFF REPORT IBD:** Due to rapid increase in population, the use of pesticides has increased to meet food requirement. However, there is a grave need to minimize the use of pesticide in order to ensure friendly environment.

Secretary and Acting Chairman, Pakistan Agricultural Research Council (PARC) Dr. Munir Ahmad said this while addressing on the occasion of "No Use of Pesticides Day" at NARC.

He appreciated the efforts of scientists and organizers to arrange such an important event to create awareness among the people of all walks of life about the hazardous effects of pesticide on human health and environment.

## Unesco marks Day of Persons with Disabilities

**STAFF REPORT IBD:** The UNESCO together with its partners in Khyber Pakhtunkhwa and Sindh has observed the International Day of Persons with Disabilities. The theme of the day for this year is "Break Barriers, Open Doors: for an Inclusive Society and Development for All".

In KPK, UNESCO observed the event together with Special Abilities Development Association (SADA) in Lower Dir while in Sindh the event was jointly observed with Nawabshah Disability Forum.

The major focus of the day was to take practical and concerted actions to include persons with disabilities in social life and development on the basis of equity and equality, highlight progress and obstacles in implementing disability sensitive policies as well as promote public awareness to break barriers and open doors for an inclusive society for all.

## S&T pivotal for national progress

**STAFF REPORT IBD:** Advancement in science and technology is pre-requisite in the present era for development of nation. We have to focus on basic and engineering sciences to compete the modern challenges and we should provide best educational facilities to IIUI students.

Rector IIUI, Dr Masoom Yasin said this at a recently held two-day national workshop to explore development in advanced electronics and bring specific expertise to this field, organized by Faculty of Engineering and Technology IIUI. In his remarks, President IIUI, Dr. Ahmed Yousef Al-Draiwesh, said that Pakistan owns best engineers and doctors while saying Pakistan a talented nation.

## Australians to help boost Pakistani mango exports

**STAFF REPORT KHI:** Australians have expressed their country's commitment to continue supporting the agriculture in Sindh especially in three sectors including Mango, Citrus and Dairy under the ASLP, Agri Sector



Linkage Programme.

The consultants of Australian Departments of Agriculture and Horticulture Peter Hofman and Peter Johnson have recently held a meeting with Rabiya Javeri Agha, Secretary Trade Development Authority Pakistan (TDAP), along with Mahmood Nawaz Shah, Director, Sindh Mango Growers Association.

They appraised the Secretary, TDAP that they are working on behalf of Australia and helping the government of Sindh in these

sectors.

The Consultants also informed that the test shipment of Mango of Sindh was made under the programme using controlled atmosphere technology, to UK to the Tesco Retail Company in 6 contain-

ers, which took almost 30 days from the picking/ shipping to the retail level, leaving 7 clear days to the retailer to market the product - whereas in normal, regular by air shipment, the retailer has only 24 to 48 hours before the product perishes.

It was also informed that UK buyers plan to visit the mango growers in coming January in order to finalize arrangements for mango shipments to United Kingdom in the forthcoming season in Pakistan.

## Telenor sells first SIM through biometric system

**STAFF REPORT KHI:** Telenor Pakistan has started selling SIMs using the recently installed Biometric Verification System (BVS) for activation of SIMs in Karachi. It has deployed BVS at 29 points of sales across Karachi, ensuring that all Sales & Service Centers and Franchises in the city are BVS compliant.



According to details, Telenor completed BVS deployment in Karachi on November 30 and starting December 1, all SIM sales through BVS are underway at all Telenor Pakistan's Sales & Service Centers and Franchises in Karachi.

The company's staff along with channel partners was trained on the new system to ensure seamless transition

to meet customer demands. Moreover, in order to facilitate consumers, special SIM sale counters for BVS have been setup alongside placement of informative posters, standees and handing out of brochures.

"We have completed the implementation of Biometric Verification Systems at all our outlets in Karachi to ensure higher accuracy of subscriber data. We are confident that BVS will further help us address the issue of unregistered SIMs and prevent the irregular use of cellular connections," remarked Lars Christian Luel, CEO, Telenor Pakistan.

The company has procured and deployed state of the art German technology with zero rejection rate to ensure an efficient verification process. These systems have also been previously used extensively in Telenor Sahulat Ghars across the country.

## Local android game touches 40,000 downloads

**STAFF REPORT IBD:** Amongst thousands of racing games and its similar genre, there is the app called Warid Rickshaw Racing, which has managed to score downloads of over 40,000 in a short span of time. Gaining phenomenal demand, the app has become one of the top performing apps in Pakistan. It has recently been pushed to the global arena with tremendous results. The game features the players as the rickshaw driver where one has to win the race. It allows players to customize their rickshaw and give it a unique cultural look.

It allows paring up with random opponents and race to the finish line, from the available modification players can choose to upgrade their Rickshaw's horse powers, speed, wheels and torque against the earned points.

## BC, HEC to strengthen links in higher education

**STAFF REPORT IBD:** The British Council and HEC will develop a strategy document for strengthening strong linkage between Pakistan and the UK in the higher education sector.

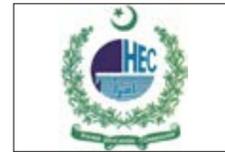
It was agreed during a recently held meeting between a delegation of the British Council, led by Director Jo Beall, and HEC Executive Director Dr Mukhtar Ahmed.

The meeting decided that this partnership would contribute to the internationalisation of institutions and would make contributions for capacity building in higher education institutions.

"We are encouraging our researchers to focus on research that is relevant to country's social and economic needs. We want our institutions of higher learning to develop indigenous solutions for indigenous problems," said the HEC ED.

"Despite a number of problems faced by this coun-

try, we have hope in the form of our youth who always give remarkable performance whenever they get an opportunity. And HEC's vision has



always been to invest as much as it can for development of our human resource," he said.

Jo Beall appreciated the achievements of Pakistan in the higher education sector and said that history of the British Council's collaboration with the HEC was impressive. He said he hoped that the proposed strategy document would not only identify matching needs of both sides but also categorise priority areas of Pakistan's higher education sector.

## Islamabad climate vulnerability study in final phase

**STAFF REPORT IBD:** The Climate Change Vulnerability and Adaptive Assessment (CCV&AAA) for Islamabad will be a stepping stone in making cities resilient", official sources said. One official said such assessment helps cities better prepare to respond to the climate related challenges.

This initiative has been planned in line with the National Climate Change Policy of Pakistan, prepared by the Climate Change Division. It was launched last year in February.

Climate Change Division, in pursuance of the cabinet's decision headed by the prime minister, to make capital a model city, launched the Vulnerability Assessment for Islamabad in collaboration with UN-Habitat in October 2013.

"UN-Habitat, through its Cities and Climate Change Initiative (CCCI) is supporting local governments across the globe to more readily respond to the climatic threats faced by cities and their populations (building Climate Resilience)".

The Cities and Climate Change Initiative is now active in 41 cities, with Islama-

bad being the latest addition. "Vulnerability Assessment (CCV&AAA) for Islamabad will be a stepping stone in making cities resilient", official sources said. One official said such assessment helps cities better prepare to respond to the climate related challenges.



"UN-Habitat stands committed to support the government of Pakistan with its global experience in urban related issues and support in the development of climate change vulnerability assessments and climate change action plans, along with supporting the policy processes," said an official of the organization.