

# AGRI. BUSINESS SUPPLEMENT

Zarai Taraqati Bank Limited



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## BIRTH OF FIRST LOCALLY PRODUCED IN-VITRO FERTILIZATION (IVF) CALF



The University of Veterinary & Animal Sciences (UVAS) Lahore has marked a significant milestone in livestock breeding research with the birth of the first Holstein Friesian (HF) calf using Embryo technology transfer through in vitro fertilization (IVF) at the Training & Research Demonstration Farm (TRDF) Ravi Campus Pattoki. This groundbreaking achievement is the result of meticulous research and collaboration across various departments at UVAS, underscoring the potential of advanced reproductive technologies to revolutionize livestock breeding in Pakistan.

Embryo technology transfer through in vitro fertilization (IVF) has emerged as a transformative approach to enhancing milk and meat production in livestock. By allowing for the selective breeding of animals with superior genetic traits, IVF enables the rapid multiplication of high-quality, productive livestock. This technology involves the fertilization of eggs outside the animal's body and the subsequent transfer of embryos to surrogate mothers. This process accelerates genetic improvement by ensuring that the best genes from elite animals are passed on to the next generation. Consequently, livestock populations can exhibit significant improvements in milk yield, meat quality, growth rates, and overall health. Additionally, embryo technology transfers support

biodiversity by preserving valuable genetics and enhancing the sustainability of livestock farming. Through these advancements, IVF not only boosts productivity but also contributes to the economic viability and food security of the agricultural sector, especially crucial in the face of a growing population.

In vitro fertilization (IVF) is a biotechnological technique widely used in livestock. IVF in livestock offers several advantages, particularly in the multiplication of superior germplasm, which refers to the genetic material of animals that exhibit desirable traits such as high milk production, disease resistance, or other economically important characteristics. The clinical and technological advances executed over time in animal reproduction have resulted in the development of a variety of tools commonly referred to as Assisted Reproductive Technologies (ART). The primary focus of these tools is to maximize the number of offspring from genetically superior animals and disseminate germplasm to breeders. Furthermore, ART allows for the effective utilization of donors with anatomical disabilities and sub-fertile conditions, for preserving the germplasm of threatened species and home breeds.



The major advances in In-Vitro Embryo Technology Transfer today seek to improve overall performance

at all procedural stages, including ovarian stimulation, oocyte recovery, maturation, fertilization, embryo development, embryo freezing, embryo transfer, and pregnancy establishment. The Embryology Lab, Department of Theriogenology at UVAS, played a pivotal role in achieving this success. The process involved ovum pickup from pure Holstein Friesian specimens at the TRDF, followed by the maturation, fertilization, and culture of oocytes in the UVAS embryology lab. The resulting embryo was then transferred to a synchronized recipient, culminating in a successful pregnancy and the birth of a healthy calf.

This achievement underscores UVAS's commitment to pushing the boundaries of scientific innovation in livestock breeding. It also demonstrates the efficacy of advanced reproductive technologies in enhancing genetic progress and productivity in the cattle population. Locally producing purebred Holstein Friesian animals via IVEP not only reduces the expense of importing animals or embryos but also contributes to the nation's sustainability while maintaining genetic integrity and high milk production levels. With government support for such projects, Pakistan could potentially rival the world's largest embryo producers in production, enabling it to compete effectively in the international market.

The birth of the first locally produced IVF calf at UVAS is a testament to the dedication and expertise of the university's researchers and their commitment to advancing agricultural science. This milestone paves the way for future innovations in livestock breeding, promising a brighter and more productive future for Pakistan's agricultural sector.

*Source: Dr. Ali Husnain, Department of Theriogenology, University of Veterinary and Animal Sciences, Lahore (UVAS).*

## AGRO-FORESTRY

Agroforestry is a unique solution that combines elements of agriculture and forestry in a sustainable production system. Trees sequester large amounts of carbon from the atmosphere and lock it into the soil, which in turn improves soil health and mitigates climate change. In short, agroforestry is the use of trees in farming systems.

Agroforestry provides numerous benefits to both farmers and the environment, making it a valuable strategy for enhancing food security and promoting sustainable development. Following are the Benefits of Agro-Forestry:

- **Increase Crop Productivity:**

Agroforestry can enhance crop productivity by offering shade, protection, and nutrients to crops. Trees and shrubs act as windbreaks, which reduces soil erosion and prevents crop damage. Trees also improve soil fertility by fixing nitrogen, adding organic matter, and enhancing soil structure. Incorporating leguminous trees and shrubs into agroforestry systems significantly boosts the yields of crops like maize, beans, and lentils.

- **Diversified Income Streams:**

Agroforestry offers farmers multiple income streams, decreasing their dependency on a single crop or product. Trees and shrubs provide wood, fruit, fuelwood, and other marketable products year-round. Additionally, agroforestry can yield non-timber forest products such as honey, mushrooms, and medicinal plants.

- **Improved Soil Health:**

Agroforestry enhances soil health by minimizing soil erosion, increasing organic matter content in the soil, and improving nutrient cycling. Trees and shrubs protect the soil from rainfall impact, prevent soil compaction, and reduce nutrient leaching. Their root systems stabilize the soil, decrease erosion, and enhance water infiltration. Trees increase water retention capacity of soil.

- **Climate Change Mitigation:**

Agroforestry helps mitigate climate change by sequestering carbon in trees and soil, thus reducing atmospheric carbon levels. Healthier soils and decreased reliance on chemical fertilizers also lower greenhouse gas emissions.

- **Biodiversity Conservation:**

Agroforestry fosters biodiversity by creating a varied ecosystem that supports numerous plant and animal species. Trees and shrubs in these systems provide food, shelter, and nesting sites for wildlife, including birds, insects, and mammals.

- **Water Conservation and Water Quality:**

Agroforestry aids in water conservation by reducing runoff and enhancing water infiltration. Tree roots retain water in the soil, decrease soil erosion, and improve water quality. Furthermore, trees and shrubs reduce soil surface evaporation, preserving soil moisture.

Trees and shrubs in agroforestry systems act as natural filters, reducing the runoff of pollutants and sediments into water bodies. This helps to maintain cleaner rivers, lakes, and groundwater, which are essential for both agricultural and domestic use.

- **Improved Livelihoods:**

Agroforestry enhances farmers' livelihoods by providing a reliable income source and contributing to food security. The diversification of income and increased productivity help reducing poverty and improve resilience to climate change and other challenges.

- **Enhanced Pollination:**

Agroforestry systems support a variety of flowering plants, which attract pollinators like bees, butterflies, and other insects. These pollinators are essential for the reproduction of many crops and can lead to increased yields and better the quality of the farm produce.

- **Pest Management:**

Agroforestry can contribute to natural pest control by promoting a diverse ecosystem. The presence of different plant species attracts various predators that feed on crop pests. This biodiversity can reduce the need for chemical pesticides, leading to a healthier environment and safer food.

- **Enhanced Food Security:**

Agroforestry contributes to food security by increasing the diversity and resilience of food production systems. The integration of multiple crops, trees, and livestock ensures a continuous and varied supply of food, reducing the risk of food shortages due to crop failure or market fluctuations.

*Compiled by: Mr. Fakhar Imam, OG-I/Unit-Head(PR&PU), P&RD, ZTBL, Head Office.*

## زرعی سفارشات برائے کسان

ملک بھر میں جولائی کے مہینے میں مون سون کی بارشوں کا آغاز ہوجاتا ہے اور درجہ حرارت 35 سے 40 ڈگری سینٹی گریڈ کے درمیان رہتا ہے۔ تاہم ہوا میں نمی کا کتا سب 50 سے 60 فیصد تک بڑھ جاتا ہے۔ جو کہ فصلات کی بڑھوتری پر اثر انداز ہوتا ہے۔ لہذا امون سون کے موسم میں فصلات میں پانی کے نکاس کو یقینی بنائیں اور فصلات میں آبپاشی محکمہ موسمیات کی پیشن گوئی کو مد نظر رکھ کر کریں۔

### موہی مکئی

- ☆ مکئی کاشت کے لیے بھاری میرا زرخیز زمین بہت موزوں ہے۔
- ☆ بارانی علاقوں میں مکئی مون سون شروع ہونے سے پہلے کاشت کریں تاکہ پودے جڑوں کا نظام اچھی طرح قائم کر لیں اور مون سون کی بارشوں کا صحیح فائدہ اٹھائیں۔
- ☆ محکمہ زراعت کی منظور شدہ عام اقسام ملکہ 2016 اگیتی 2002 ایم ایم آر آئی پی اور پرل جبکہ دوغلی اقسام ایف ایف 1046 ایف ایف 949 اور وائی ایف 1898 کاشت کریں۔ یہ اقسام پنجاب سبز کارپوریشن اور لوکل سیڈ ڈیلر سے دستیاب ہوں گی۔
- ☆ بارانی علاقوں میں مکئی کی کاشت سنگل رو کاشن ڈرل / پلانٹر سے آڑھائی فٹ کے فاصلے پر کریں۔ قطاروں کا درمیانی فاصلہ دو سے اڑھائی فٹ رکھیں۔
- ☆ موہی مکئی کی دوغلی اقسام کے لیے پودوں کی تعداد 29 ہزار سے 30 ہزار فی ایکڑ جبکہ عام اقسام کے لیے پودوں کی تعداد 25 سے 26 ہزار فی ایکڑ رکھیں۔

### موگ اور ماش

- ☆ موگ کی کاشت کے لیے بہتر نکاسی والی میرا زرخیز زمین موزوں ہے۔ جبکہ کلرنا بھی اور نیم زدہ زمین خیر موزوں ہے۔
- ☆ بارانی علاقوں کے کاشتکار موگ اور ماش کی کاشت مون سون کی پہلی بارش کے بعد وتر آنے پر کریں۔ ان دونوں فصلوں کی کاشت جولائی کے آخر تک کی جاسکتی ہے۔
- ☆ مطلوبہ پودوں کی تعداد حاصل کرنے کے لیے فی ایکڑ 8 سے 10 کلوگرام بیج کاشت بذریعہ پھلے اور ڈرل سے کاشت کے لیے 12 سے 15 کلوگرام بیج فی ایکڑ استعمال کریں۔ اور جب پودے 8 سے 10 دن کے ہوں جائیں تو چھدرائی مکمل کر کے زائد اور کمزور پودے نکال دیں۔
- ☆ آبپاش علاقوں میں منظور شدہ اقسام نیاب موگ 2011، ازری موگ 2006 اور پچوال ایم 6 کاشت کریں، جبکہ بارانی علاقوں میں نیاب موگ 2011 ازری موگ 2006، نیاب موگ 2016 اور بہاول پور 2017 جبکہ ماش کی کاشت کے لیے ماش 97، پچوال ماش اور عروج 2011 موزوں ترین اقسام ہیں
- ☆ اچھی پیداوار کے لیے بوقت کاشت ایک بوری ڈی اے پی اور آدھی بوری پوٹاشیم سلفیٹ استعمال کریں۔
- ☆ قطاروں درمیانی فاصلہ 30 سینٹی میٹر جبکہ بیج کی گہرائی 3 سے 5 سینٹی میٹر رکھیں اور پودوں کا درمیانی فاصلہ 8 سے 10 سینٹی میٹر رکھیں۔

### تس

- ☆ تس کی کاشت کے لیے پانی جذب کرنے والی درمیانی اور بھاری میرا زرخیز زمین کا انتخاب کریں تاہم یہ ہر قسم کی زمین میں بھی کاشت کی جاسکتی ہے۔
- ☆ شرح بیج ڈرل یا قطاروں میں کاشت کے لیے ڈیڑھ سے دو کلوگرام بیج فی ایکڑ رکھیں۔
- ☆ پنجاب میں عام کاشت کے لیے سفید تگوں کی منظور شدہ اقسام ٹی ایف 6، ٹی ایف 5 ہیں جو بہتر پیداوار کی صلاحیت رکھتی ہیں۔ جبکہ ان میں سے ٹی ایف 6 بہتر پیداوار کی حامل ہے۔
- ☆ اچھی پیداوار کے حصول کے لیے 15 جولائی تک کاشت مکمل کر لیں۔

# SBP UPDATES

## **Monetary Policy Statement June 10, 2024:**

Monetary Policy Committee (MPC) decided to reduce the policy rate by 150 bps to 20.5 percent, effective from June 11, 2024. The Committee assessed that underlying inflationary pressures are also subsiding amidst tight monetary policy stance, supported by fiscal consolidation. Real GDP growth remained moderate at 2.4 percent in FY24 as per provisional data, with subdued recovery in industry and services partially offsetting the strong growth in agriculture. reduction in the current account deficit has helped improve the FX reserves to around US\$9 billion despite large debt repayments and weak official inflows. Latest estimates indicate real GDP growth at 2.1 percent in Q3-FY24 against a contraction of 1.1 percent in the same quarter last year. While agriculture was already showing strong growth, industry also witnessed positive growth in Q3. Also, initial growth estimates for both Q1 and Q2 for FY24 were revised upward. Taking into account the developments in the first nine months, FY24 growth is provisionally estimated by PBS at 2.4 percent against a contraction of 0.2 percent in FY23. Almost two-thirds of this recovery was explained by improvement in the agriculture sector. During July-April FY24, the current account deficit narrowed significantly to \$202 million. In the same period, exports grew by 10.6 percent, mainly driven by increased quantum of rice and textile exports. Conversely, imports decreased by 5.3 percent during the same period. Fiscal indicators continued to show improvement during July-March FY24. The primary surplus increased to 1.5 percent of GDP, while the overall deficit remained almost at last year's level. A large part of this improvement reflected the impact of increase in tax and petroleum development levy, higher SBP profit, and lower energy sector subsidies. The broad money

(M2) growth decelerated to 15.2 percent y/y on May 24, 2024 from 17.1 percent as of end-March 2024. Headline inflation decelerated to 11.8 percent in May 2024 from 17.3 percent in April. Besides continued tight monetary policy stance, this sharp reduction was also driven by decline in prices of major food items, along with downward adjustment in administered energy prices.

**SBP instructs banks to adopt Digital Supply Chain Finance (DSCF) solutions:** SBP has issued instructions to banks to develop and implement digital solutions for supply chain finance within six months to leverage the technology for increasing the SMEs' access to finance as well as digitizing the retail payments. The circular issued by SBP require banks to establish effective Supply Chain Finance (SCF) function having suitably trained HR and systems to develop and offer digital SCF products to the SMEs. The banks have been further advised to either develop their own digital solutions for SCF or partner with any Fintech, Service Providers for providing digital SCF.

**Deputy Governor SBP encourages banks to embrace SME finance as a core business line to boost MSME growth:** As part of its Vision 2028, SBP aims to double SME financing to Rs 1,100 billion over the next five years, with Rs 100 billion to be added to the SMEs' outstanding portfolio by the end of June 2025. The Deputy Governor called on all banks to play their part in promoting SME finance and surpass the Rs 100 billion estimated increase for FY 2024-25. To further support SME finance, SBP has proposed the government to provide risk coverage to banks on their fresh financing to SMEs, whereby 20% and 10% first loss coverage would be provided to banks' fresh exposures against SEs and MEs respectively. The necessary allocations for FY25 have been made in the FY25 budget.

*Source: State Bank of Pakistan*

# MANAGEMENT TIPS



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## 1. PRIORITIZE VALUE OVER VOLUME

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Research has shown that multitasking results in mediocre outcomes. By putting too little attention on too many things, you fail to do anything well. However, the answer isn't single-tasking either. Single-tasking is far too slow to help you succeed in today's fast-paced world. Instead, identify the tasks that will create the most value and focus on those. By prioritizing value over volume and sharpening your focus on tasks that truly matter, you'll increase the quality of your work and, ultimately, the value you provide.

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## 2. IDENTIFY HIGH-VALUE TASKS

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Next, identify your key tasks—the ones that will have the most bearing on your project's success. Once you've identified

them, you need to start disciplining yourself to prioritizing these above the less important or totally irrelevant ones, such as aimlessly browsing social media feeds or agreeing to attend/booking meetings that are unnecessary.

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## 3. GET THROUGH YOUR TO-DO LIST

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Self-discipline is hard. Try these three tips to make your work more efficient every day:

**Get three things done before noon.** Statistics show that the team ahead at halftime is more likely to win the game. Enjoy your lunch knowing that you accomplished at least three tasks in the morning.

**Sequence for speed.** Break projects into parts. Take on the longer pieces at the beginning and make sure each subsequent part is shorter. If you leave the longest parts for last, you are more likely to run out of steam before the end of the day.

**Tackle similar tasks at the same time.** The mind thrives on repetition. You can build momentum by taking on similar projects at the same time.

Source: Harvard Business Review



# NATIONAL NEWS

## CLIMATE CHANGE IMPACT ON PAKISTAN

Besides extreme weather, torrential and unseasonal rains are also clear signs of climate change. April 24 was the wettest month in Pakistan in 6 decades when the country saw significantly above-average rainfall and lightning leading to loss of land and life. Pakistan ranks among the ten most vulnerable countries in the world to climate change despite accounting for only 0.9 percent of global greenhouse gas (GHG) emissions. The economic survey of Pakistan 2024-25 mentions unpredictable weather patterns, resulting in flash floods, droughts, glacial lake outbursts, intense heat waves, and erratic rainfall as destructive effects of climate change. The survey has highlighted some key striking impacts of climate change in the country. The annual expected damage from riverine floods is projected to surge by at least around 47 percent by 2050. As for heatwaves, the fraction of the population exposed yearly is expected to increase by at least 32 percent by 2050. Moreover, labor productivity is projected to decline across the board because of escalating heat stress by around 7 percent. These changes in the climate over the years have also been impacting agriculture adversely. The Economic Survey of Pakistan 2023-24 points out that climate change will lower agriculture performance with annual mean wheat yield declining by at least one percent by 2050. Air and water pollution is another area that will aggravate human health especially those living in vulnerable areas.

## COTTON GROWING AREAS: PUNJAB AGRICULTURE DEPARTMENT ESTABLISHES KISSAN SAHULAT CENTRES

The Punjab Agriculture Department (PAD) has established 62 Kissan Sahulat Centers in cotton growing areas of the Punjab province with the objective to provide quality pesticides and other

agricultural inputs to the growers at discounted prices.

## RS. 8BN TAGGED FOR 'HAARI CARDS'

The Sindh government has allocated Rs 8 billion in the next fiscal year budget for "Haari Card" to provide financial assistance to all farmers having land measuring 12.5 acres or less in the province. The registration process of approximately 788,000 out of 1.2 million farmers will be completed as soon as possible. The Sindh government has also proposed the introduction of the "Benazir Mazdoor Card" for labourers registered with the labour department and funds of Rs. 5 billion have been reserved from the Workers Welfare Fund (WWF) in the next FY 2024-25 for effective implementation of the scheme. The holder of the "Benazir Mazdoor Card" will be eligible for incentives including full medical coverage, cash benefits, employment injury grant, Iddat compensation, maternity coverage, death grant, disablement gratuity/pension, survivors' pension, workers welfare fund cash grants, marriage grant, and education grants.

## PUNJAB PROPOSES RS9BN FOR LIVESTOCK, DAIRY DEVELOPMENT PROJECTS

The Punjab government has proposed a sum of over Rs 9 billion for livestock and dairy development projects for the year 2024-25, including Rs 2 billion allocated for the "Livestock Card." The government, through livestock, intends to disburse loans on easy terms to livestock farmers in the province's rural areas. Other new initiatives include breed improvement of small ruminants through the provision of rams and bucks in different districts such as Attock, Bahawalnagar, Bahawalpur, Bhakkar, Chakwal, Dera Ghazi Khan, Faisalabad, Jhang, Khushab, Layyah, Multan, zaffargarh, Rahim Yar Khan, Rajanpur and Sahiwal.

Source: [www.brecorder.com](http://www.brecorder.com)

# ZTBL NEWS

## ZTBL wins gold during “Win Gold with PayPak” the QIV 2023 campaign



ZTBL wins gold during “Win Gold with PayPak” the QIV 2023 campaign in Special Issuing Category, Mr. Tahir Yaqoob Bhatti President/CEO ZTBL, Mr. Zahid Hussain, Group Head (Business) & Mr. Zeeshan Mazhar, CIO/CDO received the PayPak Award and gold bars alongwith other team members. The gold bar and memento were presented by Mr. Najeeb Agrawalla, CEO of 1LINK in the presence of Mr. Bashir Khan, COO of 1LINK and other team members.

## ZTBL & VRG have joined hands to enable USD Banking Solutions for Non-smart phone customers across the country



ZTBL & VRG have joined hands to enable USD Banking Solutions for Non-smart phone customers across the country. This development will enable the farmers and population in general associated with Agri business in far-flung rural areas of Pakistan to benefit from the digital services offered by ZTBL. Farmers will be able to access ZTBL services from any type of Mobile Phone whether feature or smartphone and from anywhere in the

country without the need of having 3G/4G internet connectivity, thus a revolutionary step towards digitalization of agri-based products & services.

## Agahi Mela” organized by ZTBL in the outskirts of Islamabad



A Maliati Agahi Mela was organized under National Financial Literacy Program (NFLP) at Tarnol, Islamabad by ZTBL. The event was graced by Mr. Anjum Aqeel Khan (MNA), Rana Mashhood Ahmad Khan (Coordinator to the Prime Minister on PM’s Youth Programme). To support financial literacy initiatives of the Bank, ZTBL Mobile Van was also present at the session.

## ZTBL Zarai Baithaks and Mobile Van Activity across the Country

ZTBL continued providing agri advisory and financing services across the country by arranging Zarai Baithaks and movement of Mobile Vans.

