

# AGRI. BUSINESS SUPPLEMENT

Zarai Taraqati Bank Limited



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Technology for Agriculture



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## COMBINE SEEDER FOR DIRECT SOWING OF WHEAT CROP IN COMBINE-HARVESTED PADDY FIELDS

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Farm mechanisation is an important farm input, which enhances the efficiency of all other inputs. Rice is an important cash crop and after wheat, it is 2<sup>nd</sup> major staple food item consumed in the country. Its production comprises of 34 percent of basmati (fine) types and 66 percent of coarse types. During 2021-22, the crop was sown on 3.54 mha with a total production of 9.32 million tonnes. Total rice-wheat cropping area in Pakistan is 2.2 mha and the Central Punjab contains 1.25 mha.

Rice crop is mainly harvested using wheat combine harvesters by changing threshing kit. These combine harvesters collect grains and leave the loose straw and anchored stubbles in the field. Since, the straw has no palpable value and

interfere with planting of the subsequent crop, smallholders are compelled to clear it from the field.



Due to lack of resources and a tight seeding schedule for the wheat crop as the delay gives a negative effect on the crop yield, at present residue burning is the most convenient and cheap

option to farmer. Burning of straw results in severe consequences for the environment as it leads to soil deterioration. Soil nutrients, pH level, moisture, available phosphorus, soil organic matter and microbial population are all adversely influenced by straw burning. According to a research report, 1 tonne of rice straw contains 5.5 kg of nitrogen, 2.3 kg of phosphorous, 25 kg of potassium and about 1.2 kg of Sulphur, all of that is lost due to burning. In this way, the farmers consequently end up eliminating essential macro and micronutrients from the soil by straw burning, resulting in infertile land in the long run. Rice straw is rich in fiber, lignin, starch, protein, enzymes and nutrients and its can also be used as fertilizer, fodder, bioenergy, base stock and a raw material for commercial industry.



Burning of rice residue not only results in loss of potential soil nutrients, but also poses a great threat to the natural environment, human health and economic loss when SMOG restricts road and air traffic. This practice has drawn the attention of policymakers and the public due to the adverse

effects of the burning on the environment including air pollution, which impacts the life of millions of people across countries and contributes to climate change.



Agricultural Engineering Institute (AEI) of Pakistan Agricultural Research Council (PARC) with technical collaboration of M/S Greenland Engineering, Daska has developed a rice residue management technology called as “Combine Seeder”, which is the next version of “Pak Seeder” technology. This technology chops the paddy straw and stubbles, incorporates it in the soil and plants wheat crop in a single operation. This technology not only improves soil biological and physical health, but also increases wheat and rice yields. This is a resource conservation technology that can enhance crop yield, reduce nutrients loss of the soil and save environment from smoke pollution. These technologies will help reduce the smog problem in the country. Wheat planting trials were carried out at different locations in the Punjab to see the performance of the machine. Results were compared with the conventional

wheat sowing practices. The working capacity of the machine is 0.75-01 acre/h depending upon the residue density in the field. Field seminars and demonstrations were also arranged to provide awareness and promote these technologies among farming community. The technology has a great adoption potential in the rice-wheat cropping systems of the country. This technology has a great economic impact as it eliminates soil preparation cost and increases wheat yield by 5-10% and ensures timely sowing of wheat crop after harvesting of rice crop.

## YIELD AND WATER PRODUCTIVITY OF CAPSICUM UNDER DIFFERENT CONCENTRATIONS OF TREATED MUNICIPAL WASTEWATER

**Received from:** NARC, Pakistan Agricultural Research Council, Islamabad, Pakistan.

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### Introduction

Bioremediation is a process used to treat wastewater by altering environmental conditions to stimulate growth of microorganisms and degrade the target pollutants. Keeping in view the current water scarcity scenario and importance of reuse of treated municipal wastewater, this study was carried out to evaluate the effect of reuse of municipal wastewater, treated through bioremediation, on yield and water productivity of capsicum.

## Material and Methods

### Site description

Field experiments were conducted at Climate, Energy & Water Research Institute (CEWRI) field station, National Agricultural Research Center (NARC) (33.4° N, 73.8° E, and elevation of 498m above mean sea level) under rain-out shelter. The soil of the site is silt loam with 28-33% field capacity. The climate is classified as semi-arid with hot-dry summer and cold winters. The average annual rainfall is 1200mm out of which 750-800mm occurs during monsoon (PMDC, 2018). The daily and total crop water requirements of the crop under study are shown in Table 1.

**Table 1:** Daily and total crop water requirements of capsicum.

Month	May	June	July	August	September
CWR (mm/day)	2.6	2.87	4.52	5.84	3.93
Days	10	30	31	31	15
Total CWR (mm)	26	86	140	181	59

**Source:** PMDC, Karachi and UNO, WFO, Cropwater Program, 1931-2015.

A bioremediation garden (also known as constructed wetland) was constructed at the aforementioned site. The wastewater from NARC offices and officers' colony is diverted to screening filter from where it is automatically pumped into the bioremediation garden. The facility was designed and implemented by National Institute of Bioremediation, NARC to treat 50,000 US Gallons/day of wastewater generated.

### Experimental Treatments and Land Preparation

The field experiments were carried out using a

RCB design comprising of four irrigation treatments; T1 (100% treated wastewater), T2 (66% treated wastewater and 34% potable water), T3 (34% treated wastewater and 66% potable water) and T4 (100% potable water) as shown in Table 2. Treatments were three times replicated bearing a plot size of 7m x 3m.

**Table 2: Experimental treatments.**

Treatment	Treated Waste-water (mm)	Potable Water (mm)	Total (mm)
T <sub>1</sub>	492	0	492
T <sub>2</sub>	325	167	492
T <sub>3</sub>	167	325	492
T <sub>4</sub>	0	492	492

A local variety of capsicum, “C. annum” was exploited as Test crop. After two months of sowing date, the capsicum plants were shifted to experimental field. The plants spacing was kept 40 cm. The rows were spaced 50cm apart as shown in Fig 1. Before plants transplantation, basic soil parameters were determined from the entire field by selecting different sampling sites (total 03 sites) as presented in Table 3. The soil properties from randomly selected points were same and hence, the results would not be confounded. Similarly, three wastewater samples were collected from bioremediation garden and tested in laboratory. The data obtained is shown in Table 4.

**Irrigation Application**

Before plantation, the plants were irrigated using installed integrated drip irrigation. The laterals

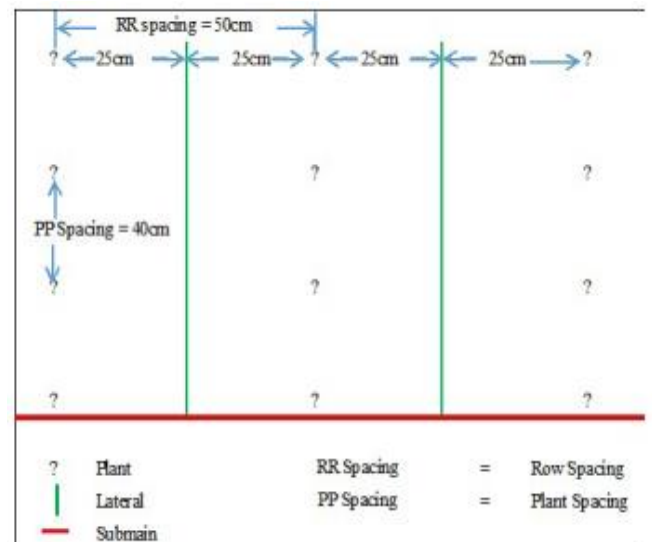
were installed between every other crop row at a space of 50cm. Irrigation water requirement was calculated by using AquaCrop 6.0 model developed by FAO. Standard procedure was followed to calculate the crop water requirement by using 10 years’ weather data.

**Table 3: Average soil physical parameters at the experimental site.**

Soil layers (cm)	Texture	Bulk density (g/cm <sup>3</sup> )	Field capacity (%)	Wilting point (%)
0-20	Silt loam	1.29	27.7	11.3
20-60	Silt loam	1.46	33.3	12.7

**Table 4: Wastewater treated through bioremediation.**

Parameter	Unit	Permissible Limit	Inlet	Outlet
Ph		6.5-8.5	8.03	7.48
EC	µS/cm	0-3000	1826.56	1369.63
TDS	mg/L	0-2000	653.24	546.11
BOD	mg/L	80	148	52.06
COD	mg/L	150	206.81	58.19
Bicarbonate	mg/L	0-610	548.44	460.56
Chloride	mg/L	0-1065	68.84	58.83
Nitrate	mg/L	0-30	2.93	1.29
Sulphate	mg/L	0-960	74.46	56.26
Fecal Coli-forms	MPN/100mL	0-1000	>16000	223.75
Total Coli-forms	MPN/100mL	0-1000	>16000	355.63



**Figure 1: Experimental layout of sub-plot.**

The weather data was collected from weather station installed at NARC. The experimental blocks were kept at field capacity throughout the growing season. 30% MAD was allowed for the crop under study (Maughan, et al., 2015). As per Crop Water Requirement, water was applied on daily basis using laterals (Jain brand, India made) with 2LPH of drippers discharge at a spacing of 40cm. Soil water content was deliberated using gravimetric method.

### **Harvesting of Crop**

There were six rows in each sub-plot. The 2nd, 3rd, 4th and 5th rows were harvested. Averages of the picked fruits were worked out and yield was calculated for hectare.

### **Yield and Water Productivity**

Yield of the total fruits of the capsicum harvested in different pickings from the sample plants in each treatment was recorded and averages were worked out and it was calculated for hectare. 1. Total water used in each irrigation treatment was calculated by using following formula and expressed as mm. 2. Total water used (mm) = water applied at all irrigations (mm) + rainfall (mm). 3. As the experiment was conducted in rainout shelter, hence, rainfall (mm) was omitted. 4. Water productivity (WP) is the ratio between fruit yield to the amount of water used. It was worked out by using the following formula and expressed as kg ha<sup>-1</sup> mm<sup>-1</sup>. 5. WP = yield obtained (kg)/water applied.

## **Results and Discussions**

### **Water Quality Parameters**

The wastewater collected in screening chamber of bioremediation garden comprises of grey water (from washrooms) and black water (from toilets). Thus, it is contaminated with detergents and organic matter which is fatal for human health. The main parameters, which are considered in wastewater for safe use in agriculture, include BOD, COD, Fecal Coliforms and Total Coliforms (Jeong et al., 2016). The BOD, COD, Fecal Coliforms and Total Coliforms of raw water collected in screening chamber were 148 mg/L, 206.81mg/L, >16000MPN/100mL and >16000MPN/100mL respectively. The permissible limits are 80 mg/L, 150mg/L, 0-1000MPN/100mL and 0-1000MPN/100mL respectively (NEQS, 2018). It is clear from Table 4, that the quality parameters of sample collected from outlet (treated wastewater) are in permissible limit and hence safe for agricultural use.

### **Yield and Water Productivity**

The yield and crop water productivity obtained for each treatment in 2017 and 2018 are shown in Table 5.

**Table 5: Bell pepper yield & water productivity for different treatments.**

Treatment	Year 2017		Year 2018	
	Yield (tons/ha)	WP (Kg/m <sup>3</sup> )	Yield (tons/ha)	WP (Kg/m <sup>3</sup> )
T <sub>1</sub>	46.43a	9.43a	46.56a	9.49a
T <sub>2</sub>	46.30a	9.42a	46.35a	9.44a
T <sub>3</sub>	43.31b	8.74b	43.48b	8.72b
T <sub>4</sub>	39.49c	8.12c	39.61c	8.12c
LSD (5%)	2.5156	0.1870	0.6076	0.2660

In the years 2017 and 2018 the results are significantly different. In both years the highest yield and productivity were obtained for the treatment T1. Similarly, the lowest yield and productivity were obtained for the treatment T4 in the years 2017 and 2018. It was observed that yield and water productivity of capsicum irrigated with treated wastewater water was 18% and 16% higher than that irrigated with potable water in the years 2017 and 2018 respectively. The results confirm to the findings of Lone and Kirmani (2018), who also identified similar yield trends for Capsicum by using bio-remediated wastewater and the reason was attributed to high nutrient content of wastewater. The results are in right alignment with Suhad et al. (2018). He concluded that wetlands can be applied successfully for domestic sewage treatment. Moreover, the corresponding system effluent can subsequently be recycling for irrigating chillies used to treated wastewater, when grown in organic growth media. In treatments T1 and T2 there is no significant difference in the results. In treatments T1 tap water was used for irrigation which did not contain nitrates (nutrient content). In T2 on the other hand only a little portion of wastewater, containing nutrients, was used. Hence, the yields and productivities for both the treatments were almost same. In T4 the whole irrigation was carried out using treated wastewater which contained the beneficial nutrients, that's why, it

resulted in better yield and productivity as compared to the other treatments. The same findings were achieved by Garcia et al. (2012). According to him, the purified urban wastewater treatment supplied enough nutrients to obtain yield and fruit quality equal to that of natural groundwater with fertilization. There was a significant saving on N, P and K fertilizers (37%, 66% and 12% respectively), achieved by using purified urban wastewater.

### **Conclusions and Recommendations**

This work has shown the prospects of increased production and reduced disposal of untreated wastewater, which may lead to reduced deterioration of surface and ground water resources. Moreover, this research has shown huge potential for profitable use of wetlands for increasing agricultural production. The use of municipal wastewater treated through bioremediation and subsequent recycling of the treated wastewater for irrigation of crops such as Capsicum annum can be a good substitute to conserve the available freshwater for drinking purposes. This recycling approach can help in saving the precious fresh water resources and thus lead to reduce irrigation water demands. Keeping in view the water saving and productivity potential of waste water, it is recommended that long term field experiments needs to conducted for identifying the benefits under changing environmental conditions.



## زرعی سفارشات برائے کسان

### گندم

- ☆ آہستی کاشت فصل کو دوسرا پانی 80 سے 90 دن اور کھیتی کاشت کو فصل کو دوسرا پانی 70 سے 80 دن ہوائی کے بعد گو بھری حالت جبکہ تیسرا پانی اگستی کاشت گندم کو 125 سے 130 دن اور کھیتی کاشت گندم کو 110 سے 115 دن ہوائی کے بعد دانے کی دورھیا حالت پر دیں۔

### کماؤ

- ☆ فصل کی کاشت کا موزوں ترین وقت فروری کے پہلے ہفتے سے مارچ کے وسط تک ہے۔ اور اچھی پیداوار کے حصول کے لیے کاشت اچھے کاس والی بھاری میرا زمین کا انتخاب کریں۔
- ☆ ہمیشہ صحت مند بیاریوں اور کیتروں سے پاک مندرجہ ذیل بیج استعمال کریں۔
- ☆ کھترتی دادہ اقسام سی پی ایف 400-77 سی پی ایف 237 ایف 240 اور بیج ایف ایف۔
- ☆ کھ درمیانی اقسام، ایف پی ایف 213، ایف پی ایف 234، سی پی ایف 246، سی پی ایف 247، سی پی ایف 248 اور سی پی ایف 249۔
- ☆ بروقت کاشت اور دیگر موزوں حالات میں فی ایکڑ دو آنکھوں والے 30 ہزار سے ڈالنے چاہیں۔
- ☆ کاشت کھیلیوں میں کرنے کے لیے ہموار زمین کو گہرا اہل چلا کر مناسب تیاری کے بعد سہاگہ دیں اور پھر جر کے ذریعے 10 تا 12 انچ گہری کھلیاں 4 فٹ کے فاصلے پر بنائیں۔
- ☆ کمزور زمین میں 3 بوری ڈی اے پی اور 2 بوری ایف او پی یا پونے 2 بوری ایم او پی درمیانی زمین میں 2.5 بوری ڈی اے پی اور 2 بوری ایف او پی یا پونے 2 بوری ایم او پی اور زرخیز زمین میں 2 بوری ڈی اے پی اور 2 بوری ایف او پی یا پونے دو بوری ایم او پی فی ایکڑ استعمال کریں۔

### مکی

- ☆ بہاری مکی کی کاشت تمام میدانی علاقوں میں فروری کے آخر تک مکمل کر لیں۔ موزوں ترین وقت فروری کے آخری دن ہے۔
- ☆ بہاری مکی کے لیے کھاروں کا درمیانی فاصلہ اڑھائی فٹ رکھیں۔ ڈرل کاشت کی صورت میں شرح بیج 12 تا 15 کلوگرام فی ایکڑ استعمال کریں۔ دھوں پر کاشت کیلئے 8 سے 10 کلوگرام بیج فی ایکڑ استعمال کریں۔
- ☆ دوغلی اقسام کے لیے کمزور زمینوں میں 3 بوری ڈی اے پی + 2 ایف او پی درمیانی زمینوں میں پونی بوری پوریا، اڑھائی بوری ڈی اے پی + ڈیڑھ بوری ایف او پی اور زرخیز زمینوں کے لیے 2 بوری ڈی اے پی اور 1 بوری ایف او پی فی ایکڑ استعمال کریں۔

### سورج کھسی

- ☆ شمالی اور وسط پنجاب میں سورج کھسی کی کاشت کا وقت فروری کے آخر تک ہے۔ جبکہ جنوبی پنجاب میں 10 فروری تک کاشت مکمل کر لیں۔
- ☆ ترقی دادہ اقسام میں ہائی سن 33، ٹی 40318، گورا 14، جی ایف ایف یو این 5264، یو ایف ایف 666 کاشت کریں۔
- ☆ کاشت بذریعہ پلانٹر، ٹریکٹر ڈرل، پوریا کیرا کے ذریعہ بھی کاشت کی جاسکتی ہیں۔
- ☆ اچھے اگاؤ کے لیے 2 کلوگرام بیج فی ایکڑ استعمال کریں۔ فصل قطاروں میں کاشت کریں۔ قطاروں کا درمیانی فاصلہ سوا فٹ رکھیں اور پودوں کا درمیانی فاصلہ آجاش علاقوں میں 19 انچ اور بارانی علاقوں میں ایک فٹ رکھیں۔

### سبزیات و باغات

- ☆ موسم گرما میں اگائی جانے والی سبزیوں میں کرلیہ، گھیا کدو توری، ہینڈی توری، بیگن، نماثر، سبزی مرچ شملہ، بڑا اور کھیرا کی کاشت کا وقت فروری تا مارچ ہے۔
- ☆ نماثر اور مرچ کی کاشت بذریعہ پیری کریں۔ جب پیری کی عمر 30 تا 35 دن ہو جائے تو اس پیری کو پٹریوں پر سفارش کردہ فاصلے کے مطابق منتقل کریں۔
- ☆ آم کے پودوں میں نامٹروجن، فاسفورس، پوناش اور جہم کی کھاد ڈالیں اور بعد میں آبپاشی کریں۔

Agro Advisory for farmers 1.2.2023

## SBP UPDATES

### **SBP announces Monetary Policy Statement**

At its meeting held on 2nd March 2023, the Monetary Policy Committee (MPC) decided to increase the policy rate by 300 basis points to 20 percent. The national CPI inflation has surged to 31.5 percent y/y, while core inflation rose to 17.1 percent in urban and 21.5 percent in rural basket in February 2023. The MPC noted that FX reserves remain low and concerted efforts are needed to improve the external position. In this regard, conclusion of the ongoing 9th review under the IMF's EFF will help address near-term external sector challenges. Furthermore, the MPC stressed on the urgent need for energy conservation measures to alleviate pressure on the external account and meet the import requirements of other sectors. Recent fiscal measures – including an increase in GST and excise duties, reduction in subsidies, adjustments in energy prices, and the austerity drive – are expected to help contain the otherwise widening fiscal and primary deficits. The MPC also assessed the impact of further monetary tightening on financial stability and the near-term growth outlook. The Committee views that the risks to financial stability remain contained, given that financial institutions are broadly well capitalized. The Committee also decided to hold its next meeting on April 4, 2023.

*For more details, please visit:*

<https://www.sbp.org.pk/press/2023/Pr-02-Mar-2023.pdf>

### **Workers' Remittances in January 2023**

Workers' remittances recorded an inflow of US\$1.9 billion during Jan 23. During Jan 23, remittances decreased by 9.9 percent on m/m and 13.1 percent on y/y basis. With cumulative inflow

of US\$ 16 billion during first seven months of FY23, the remittances decreased by 11 percent compared to the same period last year. Remittances inflows during Jan 23 were mainly sourced from Saudi Arabia (\$407.6 million), United Arab Emirates (\$269.2 million), United Kingdom (\$330.4 million) and United States of America (\$213.9 million).

*For more details, please visit:*

<https://www.sbp.org.pk/press/2023/Pr-13-Feb-2023.pdf>

### **The Last Date for Encashment of Withdrawn Prize Bonds Extended**

The Federal Government has given another opportunity to the public to get the withdrawn prize bonds of Rs.7500, 15,000, 25,000 and Rs. 40,000 redeemed/encashed by June 30, 2023. Earlier, the government had fixed deadline of June 30, 2022, for redemption/encashment of these prize bonds, however, considering that some of the prize bond holders could not get their bonds redeemed a final opportunity has been given for encashment of prize bonds till 30th June 2023. The investors of aforesaid prize bonds have options of encashment at Face Value, Conversion to Premium Prize Bonds of Rs. 25,000 and/or Rs. 40,000 (Registered), Replacement with Special Savings Certificates (SSC) or Defense Savings Certificates (DSC). The prize bonds can be redeemed from SBP Banking Services Corporation office and branches of commercial banks across the country till 30th June 2023. The SBP has issued necessary instructions to commercial banks to accept requests from general public for encashment or exchange of the prize bonds till the extended date.

*For more details, please visit:*

<https://www.sbp.org.pk/press/2023/Pr-15-Feb-2023.pdf>

## MANAGEMENT TIPS

### Simple, easy and actionable productivity tips to make your day more manageable

#### **Identify your top priorities at start of your day**

As you sit at your desk first thing in the morning, with your metaphorical coffee, take a few minutes to jot down the top 5 or ten priorities for the day ahead. Whatever you don't get to today will go at the top of tomorrow's list. You may schedule these as calendar blocks, or you might use a real list - whatever works best for you and your company.

#### **Use the two-minute rule**

Small tasks and conversations sometimes consume your energy and disrupt your time management. To combat this, use the two-minute rule. If an interrupting task or conversation is going to be quick - literally two minutes or less - go ahead and do it. If it's going to take more than that, put it on your to-do list.

#### **Say no nicely**

It's widely believed that the most productive people know how to say "no" in a considerate, polite way. The reality is that not everything is equally important, and you're not always the right person to help. Determining who is the right person for the job, when it is required, and why it's important will give you enough information.

#### **Take notes**

Keep a notebook with you to jot ideas, notes, tasks and more. That way, your brain isn't filled with "I need to remember to do X, keep track of Y and talk to Z," which can add stress and make you feel overwhelmed. With today's smart phones, you always have a notebook - and you don't even need to remember a pen.

#### **Watch your clock**

You have at least an 8-hour workday, and 5-10 top priorities. That means that each priority should take about an hour, depending on the day and the task. Track how much time you spend on specific items on your priorities list so that you know if

you're wasting time, or if you chronically underestimate how much time it will take you to finish a project. With a clearer understanding of your capacity and the time you need, you'll be able to communicate clearly your bandwidth, set yourself up to exceed expectations and successfully manage your time.

#### **Sleep!**

In order to be productive, you need to be happy, healthy and energized. Your health is a priority, not only for your personal life, but for your work life, too. Sleep is one of the most important elements of mental and physical health. Making sure that you get enough sleep is a necessary way to prepare yourself for an energized, productive day at work.

#### **Reach email nirvana**

Schedule specific time to review emails. This may be a quick check-in with your inbox every few hours, or more depending on your company culture. Take it one step further by only reading each email once. When you get an email, read it and decide what to do with it. Either respond, forward it or archive it. If it's simply information you want to keep, consider where to put it and how to mark it, so that you can quickly find it when you need it.

#### **Tidy up**

Taking small, positive steps can generate momentum and lead to larger productive actions. In that spirit, take a few moments to tidy up your work space or your computer's desktop, so that you feel accomplished and ready to tackle the next item on your list.

#### **Delegate, delegate, delegate**

Instead of trying to do every task yourself, train yourself to think "How can this get done?" If you're not an expert, it's worth considering delegation. This may mean delegating to a colleague, or an outside company that will be able to get it done faster and more effectively.

## NATIONAL NEWS

### **European Union to fund three new development programmes worth €87 million to support inclusive green growth in Pakistan.**

The programmes are part of the European Union's support to Pakistan in post-flood rehabilitation and reconstruction and are designed in close cooperation with the federal and provincial governments. These projects will focus on Khyber Pakhtunkhwa (KP), Gilgit Baltistan (GB), and Balochistan and aims at improving agricultural value chains, providing access to clean energy and enhancing the availability of the skilled labour force.

### **Caretaker Chief Minister Punjab expressed his desire to benefit from the Chinese technology in order to overcome smog across Punjab**

In the meeting with the Consul General of China Zhao Shiren, matters pertaining to mutual interest, enhancing cooperation in various sectors especially overcoming smog were discussed. CPEC projects also came under discussion during the meeting. China would continue its cooperation with the Punjab government in various sectors and will give complete assistance to the Punjab government with regard to overcoming smog problem. Moreover, a taskforce for agriculture has been formed on the orders of caretaker Chief Minister Punjab. The taskforce will come up with actionable suggestions for increasing agricultural productivity and facilitating market access for agricultural commodities.

### **Wheat Sowing Target Missed by four percent for the Rabi season 2022-2023 due to Heavy Rains and Floods**

While briefing the Senate Standing Committee on National Food Security and Research, Wheat Commissioner of the Ministry of National Food Security and Research (MNFS&R) said that Wheat has been sown over 21.94 million acres' area against the set target of 22.58 million acres for the

year 2022-23. Out of a total of 21.94 million acres of wheat sowing in the country, wheat has been sown over 15.01 million acres in Punjab, 2.95 million acres in Sindh, 1.93 in Khyber-Pakhtunkhwa, and 1.05 million acres in Balochistan. The country has missed the wheat sowing target by four percent. Senator Syed Muzaffar Hussain Shah said that the country is spending \$6 billion on the import of wheat and cotton. The spending of foreign exchange would further increase in the upcoming years as the area of sowing of wheat and cotton crops are shrinking. **The Industries, Commerce, Investment and Skills Development (ICI&SD) Department of Punjab has issued instructions to all commissioners and deputy commissioners of the province to make contingency plans to ensure uninterrupted supply of food items and to keep prices stable in the month of Ramazan.**

The Secretary ICI&SD Department Punjab has said that all the deputy commissioners of the province have been asked to review the supply chain so that the prices of essential commodities remain stable during the holy month of Ramazan.

### **Additional Secretary Agriculture (Task Force) Punjab has directed the provincial agriculture department to intensify ongoing off-season cotton management campaign to get better yield.**

The campaign will also help managing the harmful pests especially Pink Bollworm in upcoming cotton crop. special awareness campaign is also going on for the farmers and announcements are also being made in mosques, so that the farmers should keep the cotton sticks on their Deras in small bundles while stacking them in such a way that the bases of the sticks are towards the ground so that due to the sunlight, the vermilions and larvae present in these sticks are destroyed.

**Source: Business Recorder**

# ZTBL NEWS

## 11<sup>th</sup> Annual Kitchen Gardening Festival



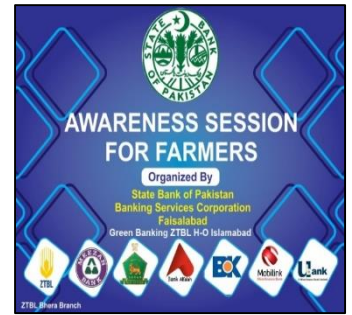
ZTBL Participated in 11<sup>th</sup> Annual Kitchen Gardening Festival held at Kissan Market Faisalabad on February 5, 2023. Ms. Huma Abbas participated from ZTBL as professional who is a key person to promote kitchen gardening (growing vegetables at home).

### Awareness Session Organized by State Bank of Pakistan and Green Banking Unit of ZTBL

An awareness session for farmers was organized by State Bank of Pakistan, Banking Service Corporation Faisalabad and Green Banking Unit of ZTBL with active participation of ZTBL Bhera Branch, District Sargodha on 07.02.2023 at Country side restaurant Bhera.



The main objective of this awareness session was to introduce State Bank of Pakistan's Markup Subsidy and Risk Sharing Schemes for agriculture. Detailed presentation was given by ZTBL on Bank's products and services, required documentation and other legal requirement for availing loan. Head ATD/GB briefed the participants about the Green Banking Products being offered by the Bank.



### ZTBL Zarai Baithaks Organized in February, 2023



During February, 2023, ZTBL Zarai baithaks have been organized in Multan, Bahawalpur, D.G. Khan, Muzaffargarh, D.I. Khan, Shaheed Benazirabad, Faisalabad, Rahim Yar Khan and Mingora Zones.



The Baithaks have been attended by more than 800 persons. Govt Officials, Progressive Farmers, Landlords, Livestock & Fisheries Farmers, Dealers from Pesticides and common interest persons have attended the ZTBL Zarai Baithaks.