



Agri-Business Supplement

Zarai Taraqati Bank Limited.

PAPAYA FARMING

Introduction

Papaya (*Carica papaya*) is one of the very popular tropical fruits in Asia. It belongs to the cactus group of plants. Commonly known as Papaya, papaw or papita is native to Mexico. In the 15th century the seeds were carried to West Indies then to Philippines, Africa and then to Indo-Pak subcontinent before 17th century. This fruit plant belongs to the family of “Caricaceae” and genus of “Carica”. It can tolerate dry and hot environment, needs adequate water supply throughout its life span. Papaya is a pear shaped tropical fruit. It is sometimes called big melon. It is a tasteful and nutritious fruit.



Papaya is a fast growing tree-like herb that reaches 3 to 10 meters tall. It is usually without branches during its initial growth. When it reaches at maturity usually after one year of production, new shoots appear at the lower trunk that develops into branches when the plant reaches its maximum height or when the main top stem is pruned off. The fruits weigh around 200 – 300 grams for solo variety and up to 10 kilograms for the large variety. The flesh is yellow to red-orange when ripe. It tastes from watery blunt to sweet and very sweet with a mild and pleasant flavor and aroma. Fruits from female plants are rounded while those from hermaphrodite plants are elongated or oblong. Seeds are numerous and are enveloped by a gelatinous seed coat. Its commercial cultivation is highly profitable and very successful.

Health Benefits and Uses of Papaya

- Papaya is excellent for the skin and can be used as a beauty face pack.
- Papaya helps in lowering the blood cholesterol level as it is rich in fiber.
- The antioxidants in papaya help in controlling premature ageing so it works as an anti-ageing agent.
- As the papaya seeds possess good medicinal properties, therefore they are very good in treating intestinal worms in the body.

- Papaya juice helps in curing infections of the colon by clearing the pus and mucus from it.
- Papaya is low in calories and high in nutritional values.
- Papaya helps in preventing constipation and aids in digestion.
- Papaya is rich in Vitamin A & Vitamin C that help in boosting the immune power.
- Papaya helps in kidney disorder cases and found that the juice obtained from the papaya leaves helps in the dengue fever treatment.
- Papaya leaves and fruits are used in herbal products as well.

It has many other practical applications. It is used in wool and silk before dyeing and to de-hair hides before tanning. It serves as an adjunct in rubber manufacturing. It is used in toothpastes, cosmetics, detergents as well as pharmaceutical particularly for digestion.

Climate Requirements

Papaya is a tropical fruit plant, it grows well in sub-tropical parts of the world. Papaya is very sensitive to frost but temperature of 25°C to 30°C is the best for its growth.



This crop can be grown from the sea level to an altitude of 1050 meters. However, growing above an altitude of 600 meters will result in poor quality and size. Generally, it requires 1600 mm to 2000 mm evenly distributed rainfall if it grown as rainfed crop. Low temperature below 15°C and high humidity causes the fruit to lose their sweetness. Usually it requires warm and dry climatic conditions during fruit ripening. As papaya plants are shallow rooted, these trees will not survive in areas where heavy winds blow.

Soil Requirements

Papaya can be cultivated in wide range of soils. However, sandy and sticky or heavy clay soils are not suitable for cultivation. The soil should be well drained for plantation. For clay or heavy soils, make sure to drain the water out in rainy season as this may cause fine foot-root and root-rot disease. The main

field should be given couple of ploughings to get tith stage and weed free. Hilly soils are ideal for papaya cultivation as these soils are being well drained in case of excess water. The ideal pH value of the soil is 6.5 to 7.0. The well drained or sandy loam soil with adequate organic matter is most important for papaya farming to get quality fruits and yield.

Land Preparation

Land should be prepared to make it weed free and leveled. Apply well rotten farm yard manure (FYM) while giving the final touch (ploughing). Remove any type of weeds that are from previous crops cultivated.

Propagation, seed rate and planting technique

Generally it is propagated through seeds. One gram contains about 50 to 75 seeds and needs 50 to 80 g seeds/ha at one plant per hill average of 80% seed germination and 80% successful seedlings. The time of sowing depends upon the choice of fruiting season. Generally, papaya is planted during (February to March), monsoon (June to July) and autumn (October to November) months.

Irrigation

Usually irrigation is required after every 2 weeks in winter season and 9 to 10 days in summer season. Irrigation requirement always depends on soil and climatic conditions. In papaya farming, furrow or ring method can be practiced. However drip irrigation can be carried out for better use of water. Make sure to prevent the water from coming in contact with the stem of papaya plant.

Intercultural Operations in Papaya Farming

It is recommended to go for deep hoeing during first year of planting to check the weed growth. Weeding should be carried out on regular basis especially around the papaya plants. For effective control of weeds, pre-emergence herbicide application of Fluchloralin or Alachlorin should be carried for at least 3 to 4 months. Earthing up should be carried out before or after the onset of monsoon to avoid water-stagnation and also to help the trees to stand erect.

Pruning

Make sure to remove the side shoots of the stem as soon as possible. Growers should cut the old, dry or diseased leaves and petioles. Thinning should be carried out on the fruits, which are poorly pollinated, malformed or pest infected. Support the plant with stakes, which should tide with the rope, especially when bearing heavy and normal fruits and during storm/heavy winds.

Fertilizer application in Papaya Farming

In papaya cultivation, it is very important to have continuous fertilization for better yield. Apply basal dose of well rotten farm yard manure (FMY) of 10 to 12kg/plant in prepared pits along with 250 grams of 'N', P₂O₅ and K₂O. Nitrogen can be increased up to 300 grams/plant for higher yield.

In sandy or gravel soils boron deficiency is very common and latex could be found on the surface of immature fruits. Micronutrients like ZnSO₄ (0.5%) and H₂BO₃ (0.1%) are sprayed in order to increase growth and yield characters. For young trees, apply fertilizer in the trench (10 cm deep and 15 cm wide) around the outer layer of tree crown, then fill back the soil, or top dress at furrows after irrigation.

Pest and Diseases in Papaya farming



Papaya is attacked by various diseases. Powdery Mildew appears on the foliage and pods. Infection first appears on the leaves. Leaf Blight causes severe damages to leaves. Damping-Off (*Rhizoctonia Saloni*) is a disease on young seedlings. Papaya Mosaic disease attacks the papaya plants of all age groups. Leaf Curl of Papaya, the disease is transmitted by the vector fly. Papaya Ring Spot Virus is spread from plants to plants by aphids.

The common pests found in papaya farming are powdery mildew, anthracnose, damping off & stem rot. As part of control measures for these diseases apply wettable Sulphur (1g/ltr) carbendazim/thiophanate methyl (1g./l.) and Kavach/Mancozeb (2g/l).

Harvesting

It is easy to identify the papaya fruits which are ready for harvesting. These fruits are harvested when they are of full size, light green in colour with tinge of yellow at apical end. Usually, on ripening, papaya

fruits of certain varieties turn yellow while others remain green in colour. When the latex ceases to be milky and becomes watery, the fruit is ready and can be harvested.



Constraints and Potential in Pakistan

Analyzing the papaya production from the world perspective there is no reason why the papaya potential cannot be exploited to a greater extent for boosting agriculture economy in Pakistan. This will immensely help in raising the incomes of the poor farmers. Sindh and Punjab provinces are suitable for the cultivation of papaya. Malir area of Karachi and coastal areas in Sindh have been growing it on commercial scale. In Malir two kinds of papaya (Bombay and Sindhi) are grown for commercial purpose. In Sindh papaya is grown as an inter crop with mango and citrus fruits. The harvest season is from January to April and August to November.



Currently, there are several constraints in the commercial production of quality papayas in Pakistan. The fruit is highly perishable. Papaya production often varies from year to year due to mainly high production cost, shortage of cold storages & processing industries and seasonal price variation in production which is most of the time low and not favorable to the poor growers. There is no proper guidance from competent authorities to the growers relating to information at the time of harvesting, grading, transportation, marketing price and supply of produce.

If the above hurdles are removed and better infrastructural facilities especially the cold storage facilities are provided, small and medium processing units are setup, there are bright chances that the regular supply of papaya in the markets will be maintained and the price variation will be controlled.

Source:

- <http://www.asiafarming.com/tag/papaya-farming-in-pakistan/>
- <https://sappk.wordpress.com/2009/05/28/exploiting-papaya-for-boosting-agriculture-economy/>

SYMPTOMS OF PLANT DISEASES CAUSED BY FUNGI

Fungi and Fungi Like Organisms (FLOs) such as *Pythium* and *Phytophthora* collectively cause more diseases in the plants than do rest of the pathogen as a whole. More than 10,000 species of the fungi and FLOs are known to be pathogen to plants. The diseases caused by the fungi are so numerous and widespread that they are found all over the world and throughout all the seasons.

Symptom is defined as the changes brought about in the plant as a result of interaction of the plant, the pathogen and prevailing environmental conditions. Sign, compared with symptom, is the pathogen seen on the host plant.

Symptoms caused by fungal pathogens mainly differ from the symptoms by rest of the pathogens. These symptoms can be broadly categorized as following depending upon the processes involved in the appearance of disease symptoms on the host.

1. Necrotic Symptoms
2. Abnormal growth and development of plant tissues
3. Other Symptoms

1. Necrotic Symptoms

These symptoms involve the death and destruction of plant tissues resulting in brittle appearance of the tissue. All the symptoms in this category involve the necrosis of the tissue from the reaction with the pathogen and result in the formation of dead cells and tissues.

The fungal pathogen in this case when reaches the host surface secretes enzymes which kill the tissue and then digest the nutrients from the dead tissues, conversely the tissue death may also occur as a result of the hypersensitive response (HR) which is the defense mechanism of host against the establishment and spread of the pathogen on host. In any case, the symptoms produced can be either localized (at the point of infection with host) or systemic (spreading though out the foliage, or stem, or entire plant). Following symptoms involve death and destruction of host tissue as a result of pathogen infection.

a) Leaf Spots

These are the localized lesions produced on the leaves of the host plants as a result of pathogen infection.



Examples: *Alternaria* sp., *Cercospora* sp., *Pyllachora* sp..

b) Shot Hole

The dead tissue on the leaves falls out leaving behind holes. This symptom is common in peaches and plums and most commonly caused by species of *Cercospora* and *Phyllosticta* etc.



c) Blights

Blights are the general and rapid destruction of the growing succulent tissues like leaves, shoots, twigs and blossoms. The blighted tissue often gives the appearance of tissue being burnt with fire.



Examples: *Phytophthora* sp., *Cryphonectria parasitica*, *Ascochyta* sp.

d) Blasts

Necrotic lesions are visible on the leaves, nodes, and at the base of heads (in case of rice). There is rapid browning and death of the tissues.



Example: Rice blast is caused by *Pyricularia oryzae*.

e) Cankers

The localized necrotic lesions are sunken and surrounded by successive layers of cork cells.



Examples: *Phytophthora* sp., *Nectria* sp.

f) Scab

These are the localized lesions which are due to the slightly raised and cracked outer layer of the fruits, leaves or tubers etc. The cracked tissue becomes dry and corky.



Example: apple scab caused by *Venturia inaequalis*.

g) Anthracnose



It is a type of disease in which dark necrotic and sunken lesions are produced on mainly leaves, fruits and stem. The fungal pathogens produce their spores in the asexual fruiting body called acervulus.

For example, *Elsinoe veneta* on raspberry and *Collectotrichum* spp. cause anthracnose of cotton.

h) Blotch

These are usually large, irregular shaped spots on the surface of the plant leaves, stem or flowers. At initial stages, when new leaf arises, these may appear as small red or purple colour, circular spots on upper surface and later on lower. On maturity, the spots on the upper surface are usually glossy dark purple and those on the lower are chestnut brown color.



Example: *Septoria tritici* blotch of wheat and *Cladosporium* leaf blotch of peony.

i) Dieback

It is the progressive and extensive death of the shoots and roots that starts from the tip of the shoots.



Exmample: *Lasiodiplodia theobromae* causes dieback of mango

j) Decline

It refers to the slow and progressive decline in plant health and vigor and the plant show abnormality in growth. Symptoms of dieback are also visible; leaves are small, brittle and discoloration of leaves are common symptoms.



k) Pallor

The chlorophyll in the leaves is dissolved hence the abnormal pale coloration of the diseased area occur when pathogen is present on or inside the leaves.

l) Damping Off

The young or seedlings collapse at the back due to pathogen attack before or after the germination. Older



plants are seldom killed by damping off but there is definite reduction in size and growth pattern and hence yield is reduced.

Example: *Pythium* sp., *Phytophthora* sp., *Rhizoctonia solani*.

m) Basal Stem Rot

The disintegration and rotting of the stem, close to the ground is associated with the destruction of the cambium and vascular tissue hence the plant showing typical symptoms of wilting.



Example: *Ganoderma zonatum* cause basal stem rot in palms

n) Root Rot

The disintegration and decay of the tissues of roots by various fungal pathogens.



Example: *Phymatotrichum omnivorum* cause root rot of cotton.

o) Soft & Dry Rots

Wet rots are caused by certain fungi which is caused by disintegration of the tissues in leaves, fruits, wood, tubers etc.



Example: *Rhizopus spp.* causes soft rot of sweetpotato.

2. Abnormal Growth and Development Of Tissues

These symptoms results due to the **hypertrophy** (increased cell size) and **hyperplasia** (increased number of cells) due to the interaction of chemicals produced by the pathogen and the tissues of host. The tissues show abnormal growth pattern which result in altered morphology and physiological functioning of the affected part or entire plant.

a) Galls

Abnormal growths (swollen/raised tissues) formed by the interaction of the certain fungi on the host leaves, stems, roots or flowers.



Example: *Dibotryon morbosum* causes gall of choke cherry.

b) Clubroot

Gall formation or distortion take place in the roots giving the appearance of spindle or clubs.



Example: *Plasmodiophora brassicae* cause clubroot of crucifers.

c) Warts

Hard, benign protuberances (called **warty excrescences**) produced on the stems or tubers and caused by fungal or viral pathogen.



Example: *Synchytrium endobioticum* cause potato wart disease.

d) Powdery Scab

It is totally different from simple scab. The infected tissue has brown spongy spots, which are dry and in severe conditions give appearance of warts.



Example: *Sponiophora subterranea* causes powdery scab of potato.

e) Witches' Broom



In this disease, profuse branching of the twigs takes place in which the new twigs are turned upward, short, and bear small leaves giving the appearance of witches' broom.

Example: *Moniliophthora perniciosa* causes witches' broom disease (WBD) in cocoa.

f) Leaf Curling

Easily distinguishable symptoms occur like distortion, discoloration and curling of the leaves due to fungal pathogen (*Taphrina deformans*). In the early stages the leaf shows red colouration, which is thicker and softer than normal mature leaves.



g) Atrophy

It is the reduction in size due to the parasitic fungi which induce hypertrophy and the growth is said to be

suppressed. For example *Peronospora brassicae* suppresses the floral buds in *Brassica* sp.

3. Other Symptoms

a) Gummosis

It is the oozing out (seeping) of the amber coloured exudate from the diseased tissue which may be bark of the stem, leaves or fruits and later sets into solid mass.



The plants produce gum/exudates as a defensive mechanism against the entry of pathogen into the host tissues. Different species of Botryosphaeria cause gummosis in different plants.

b) Leaf Dropping and Fruit Dropping

Dropping of leaves or fruits is also very common symptom associated with infection of any fungal pathogen. For example, *Phytophthora* attacks on palm, *Cercospora* and *Hemileia*.

c) Wilts / Vascular Wilts

In case of fungal attack, the vascular bundle is blocked out by the pathogen and results in the loss in turgidity and drooping of the leaves and shoots of the plant.



Wilting due to pathogen attack is permanent. Most common vascular wilts are caused by *Fusarium* and *Verticillium*.

d) Rusts

This is a disease characterized by rusty appearance on the leaves and stems of the host plant as a result of the infection produced by the fungal pathogen belonging to the order Uredinales (rust fungi).



e) White Rust



White coloured spots of conidia spores of oomycete *Albugo candida* in brassica family.

f) Smuts

It is a disease characterized by masses of dark, powdery spores



of smut fungi belonging to order **Ustilaginales**.

g) Mildews

It is the Presence of whitish mycelium and fructification covering the areas on leaves, stems or fruits. If the whitish mycelium is present on the upper surface it is called Powdery Mildew and if it is present on the lower surface of the leaf it will be Downy Mildew.



Bremia, Peronospora

Plasmopara, and Pseudoperonospora cause Downy mildews of dicotyledonous plants such as lettuce, tobacco, grapes and cucurbits.

Peronslerospora,

Sclerophthora and *Sclerospora* cause Downy Mildews of monots such as corn, sorghum and sugarcane.

h) Ergot

The grains in the heads of the cereals are replaced by black or purple coloured sclerotia (ergot fruiting body) of ergot fungus *Claviceps purpurea*, just before the harvest.



Source: http://extension.wsu.edu/sanjuan/wp-content/uploads/.../FungalPlantPathogens_002.pdf

SEEDLING PRODUCTION

A seedling is young plant saprophytes developing out of plant embryo from a seed up to one metre of height and the term seedling production is the production of seedlings for a certain purpose, especially plantation.

The scope of seedling production has been brought by various issues on environmental protection, forest production, tree improvement, ecosystem balance, forest regeneration and many other programs.

To fulfill the demand and objective of plantation, there are several techniques and procedures of seedling production developed by experiences and researches on it.

Appropriate site selection, site preparation, quality seed collection, seedlings establishment, storage, protection, management and supply are the components of high seedling yields.

Use of efficient machines and strong supervision by experts has wide scope in it. Mostly seedlings are

produced in a nursery either from seed or from vegetative parts. During the plant production, nursery should be established in which beds are prepared for seed sowing and germination of seeds, root-shoot cutting, etc.

For very minute seeds, a seed tray for seedling production is prepared filled with different media such as coarse sand, fine soil, forest soil, etc. Sometimes, plastic covered shade house or green house is constructed, where seed trays are placed and seeds are sown in tray for quick germination because there are humidity and temperature controlled.

After germination when seedlings gain height or form of 2-4 leaves, they are picked out and transplanted into poly bag or in other type of containers.

Overhead shade is provided for root and shoots' setting and to gain resistance and gradually seedlings become hardened, overhead shade is removed when plants are ready to transplant.

Seedling Establishment



Seed Sowing: Seeds may be sown by two ways either directly into the pots or it may be sown first in seedbeds or seed trays and the seedling are later picked out into the pots. Generally, Sowing seeds directly into the pots should be used only with fairly large seeds having a germination percentage of more than 40%.

Some species that are usually sown are Acacia catechu, Artocarpus lakcocha, Bassia butyracea, Albizea spp., Pinus etc. Methods of direct sowing are also divided into following three parts;

1. Broadcast sowing: in this method, the seeds are merely scattered over the surface of the soil. For

example, *Alnus nepalensis* has been successfully established along the lamosangu –charikot road.

2. Line sowing: usually strips 30-45cm wide are cleared and hoed depth of 15cm or more. it commonly requires 15-20 times as much seed per hectare as would be needed if the same quantity of seeds was used to raise plants in nursery.
3. Patch sowing and sowing in pits: This is sowing of seeds by forming pits and patches in nursery. The development of root of seedlings should be better in pits than patches. This is observed in acacia catechu forest in Pokhara valley.

The optimum time for sowing seeds on most sites is during the premonsoon rains as soon as the soil has been sufficiently moisture .In areas where snow can be relied on, sowing before the first snowfall often gives good results, the seed will germinate after the snow melts.

Cutting: Cuttings can be done differently such as Branch cutting, stem cutting and root shoot cutting.

Layering: Layering can be done into two ways, i.e., Ground layering and Air layering.

Grafting: Cleft-graft, veneer-graft, splice/whip and tongue-graft and underbark graft. A scion is used to stock for seedling production.

Tissue culture: Tissue culture (often called micro propagation) is a special type of a sexual propagation where a very small piece of tissue (shoot apex, leaf section, or even an individual cell) is excised (cut-out) and placed in sterile (aseptic) culture in a test tube, Petri dish or tissue culture container containing a special culture medium.

The culture medium contains a gel (agar) with the proper mixture of nutrients, sugars, vitamins and hormones, which causes the plant part to grow at very rapid rates to produce new plantlets. It has been estimated that one chrysanthemum apex placed in tissue culture could produce up to 1,000,000 new plantlets in one year.

Thus, tissue culture is used for rapid multiplication of plants. A very specialized laboratory is required for tissue culture. All the procedures are done in a laboratory and special ventilated cabinet that is as sterile as an operating room.

Different techniques in plant tissue culture may offer certain advantages over traditional methods of propagation, including;

1. The production of exact copies of plants that produce particularly good flowers, fruits, or have other desirable traits.
2. To quickly produce mature plants.
3. The production of multiples of plants in the absence of seeds or necessary pollinators to produce seeds.
4. The regeneration of whole plants from plant cells that have been genetically modified.
5. The production of plants in sterile containers that allows them to be moved with greatly reduced chances of transmitting diseases, pests, and pathogens.
6. The production of plants from seeds that otherwise have very low chances of germinating and growing, i.e., orchids and nepenthes.
7. To clean particular plant of viral and other infections and to quickly multiply these plants as 'cleaned stock' for horticulture and agriculture.
8. Plant tissue culture relies on the fact that many plant cells have the ability to regenerate a whole plant (totipotency). Single cells, plant cells without cell walls (protoplasts), pieces of leaves, or (less commonly) roots can often be used to generate a new plant on culture media given the required nutrients and plant hormones.

Type of Containers

Container-raised plants (plants in polybags): Raising plants in polythene containers has become general practice for afforestation in tropical countries, mainly because the rate of survival of seedling is higher especially under unfavorable conditions.

They also reduce the rate of failure due to the careless handling by inexperienced labor. Other advantage are that nurseries do not need good soil. The standard container for raising plants in the nursery is a polythene pots, 3inch*7inch (7.5cm*18cm) lay flat closed at the bottom and made up of transparent 200 gauge polythene with two holes on the side of drain out water.

When filled each about 2.5cm in diameter. Black polythene pots are now being used raised seedlings as it is slower to degrade under the effects of sunlight, also prevents the growth of algae within the pots. Especially nurseries above 1500m elevation or where seedlings have to be kept in the pots for more than year, black polythene is preferable.

Bare-root plants: In this system, seedlings are not grown in separate containers but together in a bed with thousand of plants of others. It is best suited to

species with medium to large size seed e.g. pinus spp. The main advantages of bare-root are that they are much easier to transport than plants in containers.

Large ball-rooted seedling These are plants of 75-150cm in the nursery for 12 months or longer, and lifted with a ball of soil around their roots 10-15cm in diameter, which is usually wrapped in grass, sacking etc. to keep it moist during transports. This is traditional method in Europe, practically for raising ornamental trees but has been largely replaced growing plants in large containers of plastic and other materials.

Stump (roots and shoots cuttings) Stumps are prepared by digging up plants from nursery beds, cutting off the stems a few centimeters above ground level, and shortening and trimming the roots. This method is much easier to transport than container raised plants and less subject than bare root plants.

Cutting and other vegetative propagated methods

The main use of cutting and other vegetatively propagated materials is when species to raise from seed or seed is not readily available. They also have the advantage of reducing the time needed in the nursery to obtain plants large enough for planting in the field. Another advantage of cuttings is that they are genetically identical with their parent trees so that trees of good form and vigor can be reproduced easily. Cuttings can be classified as: Stem cuttings, Leaf cuttings, Leaf bud cuttings & Root cuttings.

Care and Handling of seedling:

From the time you receive your seedlings until they are planted, proper care is vital to maintain their healthy condition. Remember, seedlings are perishable. So, it's the best to plant them as soon as possible once you have received your order. Here are a few seedling care and handling tips to keep in mind:

1. Minimize exposure to wind and sun during transporting seedlings.
2. Store in refrigerated location, if available.
3. Allow for ventilation around stacked seedling packages.
4. Protect seedlings from freezing temperatures.
5. Mend any accidental tears in the seedling package with tape to reduce moisture loss.
6. Do not water seedlings. Watering will wash away the protective gel applied to the roots at the nursery.
7. Protect seedlings from direct sunlight and wind before and during planting.

Source: www.pakissan.com

MANAGEMENT TIPS

Good Listeners Ask Good Questions

Some people equate good listening with sitting silently, nodding, making eye contact, and, when the speaker is done, paraphrasing what you heard. But these things



are only part of what makes someone feel that you heard them. The best listeners go deeper by trying to understand the substance of what the other person is saying. Doing this requires that you ask questions to clarify your understanding and push the other person to better articulate their position, examine any assumptions they're making, and see the issues in new light. You should also try to empathize with and validate any emotions the speaker is conveying. Once you've made sure the person feels supported, you can offer some thoughts and ideas about the topic that could be useful to the other person. Just be careful not to hijack the conversation so that you or your agenda becomes the subject of the discussion.

Source: *Management Tip of Day, Harvard Business Review*

The Benefits of Performance Appraisal

There are a number of potential benefits to the business which flow from effective assessment of performance. In addition to reviewing performance, appraisal systems also provide an effective means of obtaining information about your business which may assist in the making of other strategic decisions.



Potential benefits include:

- Strengthening of the relationship between employee and supervisor.
- Feedback from employees which may improve job design, working environment, career path planning etc.
- Identification of potential for future management positions, and promotions or transfers. Identification of training needs.
- Information for workforce planning, career and succession planning decisions.
- Ability to match employees with suitable jobs in order to achieve better overall outcomes.

Information for decisions regarding wage and salary administration, as well as the allocation of various types of rewards.

- An outlet for communicating grievances and problems.
- A means of maintaining performance levels by identifying deterioration before it becomes serious and providing corrective action.
- A way of encouraging employees to take the initiative to improve job performance.
- Checks on the effectiveness of other human resource policies, such as recruitment and training. Provides identification of any obstacles to good job performance.
- Establishes and develops competencies.

Source: <https://associations.net.au/>

Culture is the Lifeblood of an Organization

Culture reflects the values, beliefs, and behaviors that determine how employees perform and interact with



each other every day. Leadership development can play a vital role in helping to accelerate, reinforce and sustain culture, and culture is definitely born in the executive suite – when leaders change their behaviors, others do too. It's leaders who need to define the culture, communicate it to all organizational levels, and act and behave in ways that reflect and reinforce their desired outcomes. Arvinder Dhesi, a Hay Group senior client partner, stated “we believe that talent, leadership and culture are intrinsically linked, and they are crucial to strategic execution. It's a mistake for leaders to believe that culture is somehow separate from themselves or a separate project. Everything that leaders do contributes to the culture. There's no culture-neutral behavior.” To assist leaders in culture-building, the study offers these helpful data points: • Organizational alignment and collaboration was considered the primary driver to improve culture • Communications was the most used strategy to improve culture, followed by leadership development and embedding culture change in management objectives.

Good Customer Service Attracts Loyalty



This is according to the KMPG International’s survey which analyzed shopping behavior of 18,000 consumers (aged 15-70 years old) from 51 different countries. The survey indicates that in terms of loyalty, nothing trumps excellent customer service as 65% named it as the “number one loyalty-earning attribute” followed by exclusive promotions and offers at 45%. The study also noted that younger consumers—the Millennial generation—tend to be more loyal towards companies that offer personalized interactions: customized promotions, anticipation of needs, having a sense of community, one-on-one engagement in social media, online games, and other interactive experiences, as well as concierge services. Millennials will be the mainstream consumer 10 years from now, the study adds.

Source: *BusinessWorld*

Provoke Useful Chats with these Questions



Good managers ask questions. Try these to prompt your employees to speak up: (i) “What’s on your mind?” (ii) “What else?” (iii) “What’s your biggest challenge on the job?” (iv) “What do you want from your career?” (v) “How can I help?” (vi) “What’s most useful to you?”

Managing ‘Happiness Decay’



Happiness decay is a reality. No matter how great an employer you are, how beautifully designed your offices are, or amazing your employee benefits are, there will come a time that your employees get used to what’s on offer and eventually fail to be enough to keep them happy. To manage happiness decay, experts say companies that make social responsibility a core part of their projects help fight “happiness decay” in their employees. To keep valuable employees committed to the company, several organizations pay extra for their work on social projects and give staff a say in which causes the company supports.

Don’t Turn A Lead from Personal to General



One of the biggest mistake people make is that having engaged people around an area of their interest at an event, they then add their names and contact details to a general database or CRM system, following up with them in a way that makes no reference to the positive experience they have just had with your brand. The goodwill that was generated is lost rather than built on.

Source: *Richard Woodward, [http:// www.richardwoodward.com](http://www.richardwoodward.com)*

NATIONAL NEWS

Farmers Advised to Stop Irrigating Wheat Crop Ahead of Rainy Spell

The Met Office asked the farmers to stop irrigating wheat crop ahead of the expected rainy spell in the agriculture plains of the country. It said that the farmers of irrigated and rain-crop areas should remove weeds from their fields with a view to helping the crops consume existing moisture in the soil fully.

Farmers in the lower half of the country, especially those in central regions should ensure maintaining room temperature at the poultry rearing houses keeping in view the rapid weather changes and humidity in the air. It urged the growers, particular, the northern half of the country to take precautionary measures for protection of their crops and livestock from the expected frost.

Government Releases Over Rs3.18 Billion As Fertiliser Subsidy

The federal government has released an amount of over Rs 3 billion as fertiliser subsidy to the importers and manufacturers. After physical verification from Punjab, the Ministry of National Food Security & Research (NFS&R) has finally issued instructions to State Bank of Pakistan (SBP) for release of partial (pending) payments against Urea and DAP subsidy.

The Ministry of NFS&R had issued an advice for payment of fertiliser subsidy claims for the period from 25th June to 30th November 2017 to sixteen importers and domestic manufacturers. While, payment of three suppliers has not been released as their claims" verification is in progress.

According to M/o NFS&R letter sent to SBP, the ministry has requested SBP for payment of Rs 3.184 billion to fertiliser importers and local manufactures under the fertiliser subsidy scheme 2016-17 as government of Punjab has physically verified and fertiliser Cell of M/o NFS&R has reconciled the subsidy claims.

Overall some Rs 21.164 billion has been reconciled by the Fertiliser Cell of the ministry as DAP and Urea subsidy, out of which some Rs 6.546 billion have already been paid. While, recently the government of Punjab has verified another amount of Rs 6.5 billion, of which some 50 percent or Rs 3.18 billion is being released to the importers and domestic manufacturers. The released amount is likely to physical transfer into

accounts of the fertiliser companies.

Green Pakistan Programme Launched

The federal governments' initiative to improve the forest cover of Pakistan through Green Pakistan Programme was formally launched on February 09, 2017, all across the country. The Punjab Forest Department also launched the programme by planting 100,000 saplings over an area of 138 acres across 19 districts of the Province.

A ceremony was held at Karol Forest, Lahore, which was attended by Minister Mian Yawar Zaman, Secretary Captain (R) Jahanzeb Khan, Additional Secretary, Forestry, Wildlife & Fisheries Department, Government of the Punjab Shahid Rashid Awan and CEO, South Punjab Forest Company(SPFC).

For Green Pakistan Programme, the federal government is bearing 50 percent cost of the project, whereas each province will contribute 50 per cent as a matching grant. Through the programme, 100 million trees will be planted across the country. The programme aims to plant indigenous tree species to conserve and promote the local flora of Punjab. The species to be planted in different ecological areas include Chir, Kail, Deodar, Fit, Partal, Spruce, Phulai, Kiker, Rubinia, Kahu, Jand, Ber, Fig, Akhrot, Toot, Neem, Frash and other species etc.

Government Urged to Focus on Climate Change

A study conducted by Oxfam and the Indus Consortium, under their joint campaign on climate change and need for adaptation, has urged the Pakistani government to adopt the multi-hazards vulnerability risk assessment approach in each district of Punjab for development of local adaptation plans of actions (LAPA) in agriculture and allied sectors.

The study recommended incorporation of findings of local adaptation plans of action in district annual development plans and allocate financial resources, specifically for development of projects/schemes for women. It also suggested voluntary programmes for mass awareness on climate change, especially for women, and establishment of Climate Farmer Field (CFF) schools in each district.

The report further urged the provincial government to make water stealing a non-bailable offense. Higher rates of fines should be introduced according to the gravity of the offense and the stealer's purchasing power.

Source: www.brecorder.com

ZTBL's NEWS

Deposit Taking Branch of Neelkot Achieved 1st Deposit of Rupees 100 Million

The newly established deposit taking branch at Neelkot has achieved its first deposit of Rs. 100 million. In realization of the same, Chief Operating Officer of the Bank; Mr. Aamir Hussain, visited the branch to appreciate and celebrate the achievement in a cordial manner.



Consultative Visit of ADB Mission for Study on Strengthening the Enabling Environment for Disaster Risk Financing

The Asian Development Bank's Technical Assistance Team, represented by Principal Financial Sector Specialist for Sustainable Development & Climate Change, Mr. Arup Chatterjee



along with Ms. Charlotte Benson (Joint Team Lead and Principal Disaster Risk Management Specialist), Mr. Shauzab Ali (Senior Project Officer), Mr. Faraz U. Amjad (National Insurance Industry Specialist) and Ms. Kehkashan Kakakhel (Disaster Risk Financing Specialist, Consultant) visited ZTBL Head office Islamabad on 3rd February 2017.

The purpose of the Mission was to formulate a range of initiatives to promote greater uptake of Disaster Risk Financing (DRF) to increase resilience to natural hazards and facilitate more timely post-disaster response, in turn reducing the adverse economic and social impacts of disasters. SME, agriculture and infrastructure were the areas for this technical assistance team for establishing an understanding for development of a tool kit of actions to strengthen the environment, supporting the establishment of comprehensive DRF strategies linked to solvent risk transfer markets.

The Technical Assistance team were provided with in depth overview of the Bank policies for envisaged disaster risk financing viz-a-



viz the risk profiling of the agriculture financing business being the principal business activity of the Bank including crop and bank's property / assets insurance and rescheduling of loans with prompt lending operations in disaster hit areas.

ZTBL and ADFIMI to Hold Regional Seminar

Zarai Tarqati Bank Limited has planned to arrange a two days regional seminar on "Financial Inclusion Strategies in South Asia: Methodology and Perspective" in collaboration with Association of National Development Finance Institutions in Member Countries of the Islamic Development Bank (ADFIMI). The seminar is envisaged to be held on 28th & 29th March in Islamabad which will be attended by different speakers and participants from the region.

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