BIOLIFE

Volume 01 Issue 52 September 2016

Multivitamin with Immunostimulant triggers Fish Growth

Vitamins and immunostimulants are important in helping shrimp and fishes to build a strong immune system against harmful bacteria and diseases. Liquavit Aqua is a liquid multivitamin with immunostimulant which helps to enhance immunity, feed intakes, and overall health performance. It contains Vitamin A, D_3, B_1, B_2, B_6, E and C. The vitamins and immunostimulant provided by Liquavit Aqua are mainly utilized for growth and survival enhancement for fishes and shrimp in their habitat. Stress, mainly due to transportation, is one of the major reasons for mortality of fish fry. Liquavit Aqua helps to fight with stress. Moreover, joint application with antibiotics can bring better results for this multivitamin and immunostimulant. Liquavit Aqua is, perhaps, the only product of its kind in the domestic market which has both multivitamins and immunostimulant for fish fry and fingerlings. Besides, the usage of any other supplementary medicine for aquaculture is reduced with the regular use of Liquavit Aqua. Thus it can reduce the cost of production and bring three-fold benefits (increased immunity, reduced mortality and cost) for fish farmers in the long run. Since July 2016, ACI Animal Health has been manufacturing and marketing Liquavit Aqua in Bangladesh.

Dr. F H Ansarey
Executive Director
ACI Agribusiness

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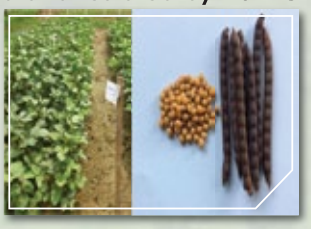

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SonaMung, the Legendary Mungbean of Bangladesh recovered and restored by ASRBC

Pulses are an important source of protein for the people of Bangladesh, especially the rural population. On average about 5 lakh 50 thousand tons of pulses are produced in Bangladesh every year, 95% of which comprises of grass pea, lentil, mungbean, chick pea, black gram, pigeon pea, etc. Apart from nutritional value, pulses act as cash crops for farmers, since these are short duration crops which are usually grown in between two major crops, have relatively year round production capability and required low input. Of the pulses mentioned, the most popular are Lentil and Mung. The Advanced Seed Research and Biotech Centre (ASRBC) of ACI Limited has been developing both the two important pulses and has successfully recovered the SonaMung of Bangladesh.

Since Bangladesh hadan acute shortage of food grain production; cereal cultivation received top priority for long years from both the government and the farming community? This coupled with the lack of varieties having high yields, determinate flowering and susceptibility to diseases and pests, Mung Bean production in Bangladesh had declined significantly. Two types of Mung Bean are grown in Bangladesh- Green Gram (green seeded) and SonaMung (golden seeded). The SonaMung is a traditional type/ variety having a unique palatability test, but yield is quite low (about 0.75 tons/ha) as per the report of the Pulse Research Centre, BARI. The seeds of this variety are round, less sensitive to diseases, insensitive to season (though yield is variable) and has good cooking quality. The ASRBC has improved both Green Gram and the SonaMung through various techniques and has successfully increased the yield to 1.9-2 tons/ha.

The research has been carried out initially in the fields of Sher-e-Bangla Agricultural University under MoU with ACI and then the final field trials were conducte-dat the Central Research Station of the ASRBC, ACI Ltd. The technique used to develop the new genetic materials within a short period of time, of around one and a half year, to be exact; is by practicing pure line selection of breeding, where only carefully graded bold seeds were advanced each season. This allowed genetics to choose the bold seeds over the smaller sized ones leading to more bold seeds in each season. Initially, 45% of harvested seeds were bold while the rest were medium, small and shriveled. After 4 seasons 72% of harvested seeds have become bold with bright golden color and uniform shape. The newly developed seeds will be sent for multi-location field trial under the Product Demonstration Service Team of ACI Limited while being processed for registration.

Conserving and restoring traditional varieties through R&D is part of ASRBC's objectives since this maintains the biodiversity of the country. So far the research center has improved one potato (LalPakri) and one rice variety (Jeerasail), while the SonaMung has been the new successful addition. The research works on SonaMunghas been conducted by AdeebaRaihan under the supervision of Prof. Lutfur Rahman.

Prof. Lutfur Rahman
Advisor, ACI Agribusiness & Head of Advanced Seed Research & Biotech Centre

FRA Gut Balance

FRA Gut Balance is a combination of alpha-monoglycerides of propionic (C3), butyric (C4), caprylic (C8) and capric (C10) acid. The combination of these active ingredients is active against both Gram-positive and Gram-negative bacteria. Since the monoglycerides are pH independent, the inclusion of FRA Gut Balance in poultry can support the microbial balance in the intestinal tract and help maintain gut wall integrity, thus contributing to the optimal gut health and stimulating animal performance. Each 100 ml FRA Gut Balance contains Mono-, di- and triglycerides of capric acid 5 ml, Mono-, di- and triglycerides of caprylic acid 5 ml, Mono-, di- and triglycerides of propionic acid 11 ml, Mono-, di- and triglycerides of butyric acid 41 ml, Essential oils & FFA 7 ml, Glycerol 24 ml and Water q.s. to 100 ml. FRA Gut Balance controls diarrhoea, prevents dysbacteriosis (overgrowth of harmful bacteria in Intestine). Besides, it controls E. Coli, Clostridium perfringens, and Salmonella while improving resistance against coccidiosis. Improvement of FCR, daily weight gain, and litter quality are direct results of using FRA Gut Balance. On 16 August 2016, ACI Animal Health launched it. It is manufactured by Framelco (Netherlands). FRA Gut Balance is available in 100 ml & 500 ml bottles.

Ruchi-Sol Liquid

On 2 August 2016, ACI Animal Health launched Ruchi-Sol Liquid which is an appetizer solution. It contains digestive enzyme 8, Herbal immunostimulant 2, amino acids 3 and 5 vitamin B complex. Each ml of Ruchi-Sol contains Vitamin B2 2.0 mg, Vitamin B6 0.62 mg, Vitamin B12 6.25 mg, D-Panthenol 1.25 mg, Nicotinamide 37.5 mg, DL-Methionine 5.0 mg, L-Lysine 5.0 mg, Choline Chloride 5.0 mg, Digestive enzyme 7 mg, Nux vomica 3 mg, Sarsaparilla 3 mg, Immunostimulant 25.0 mg and Excipients q.s. to 100 ml. Ruchi-Sol increases appetite, enzyme secretion, digestion of feed, involve metabolism, energy production, RBC production, increase production and help to protect the vitamin B complex deficiency. Besides, it helps to lay eggs in layer and love bird. Prevention of uterine prolapse and paralyses is also an expected outcome of its application. Moreover, it increases the survival rate of fish fry and helps in molting of shrimp. Ruchi-Sol Liquid is available in 100 ml and 500 ml bottles.

Sulfa Forte-4 Inj.

Sulfa Forte-4 Inj. is a powerful Sulfa injection with less pain (Lidocaine HCl). Each 1 ml of Sulfa Forte-4 contains Trimethoprim 40 mg, Sulfathiazole 40 mg, Sulfadiazine 60 mg, Sulfamerazine 100 mg, and Lidocaine hydrochloride 1 mg. Trimethoprim binds to dihydrofolatereductase enzyme & inhibits the reduction of dihydrofolic acid (DHF) to tetrahydrofolic acid (THF) which is essential for bacterial synthesis. So bacteria can't survive. While Sulfathiazole inhibits microbial growth, Sulfadiazine acts through inhibition of dihydropteroatesynthetase. Resistance arises through multiple mutations in this gene. Besides, Sulfamerazine inhibits folic acid synthesis by acting as a competitive inhibitor of dihydropteroatesynthetase, an enzyme found in the folic acid synthesis pathway. Lidocaine hydrochloride creates the anaesthetic effect and preventing pain signals from propagating to the brain, but by stopping them before they begin. Sulfa Forte-4 is effective in bacterial infection of respiratory, alimentary and urogenital tract: bronchitis, pneumonia, diarrhea, metritis, arthritis, MMA, etc. It is launched on 1 June 2016 by ACI Animal Health.Sulfa Forte-4 is available as 50 ml bottle.

Pathonil

Pathonil is a strong sanitizer which works against pathogens. It contains Alkyl dimethylbenzyl ammonium chloride 80% which is also known as Benzalkonium chloride (BKC) 80%. Pathonil is effective in the prevention and cure of fish and shrimp diseases caused by harmful bacteria, virus, fungus, and protozoa. It also controls massive algal growth and prevents parasites like Zoothamnium. Fish and shrimp become shining due to the sanitization. Molting of shrimp is also accelerated with the help of Pathonil. It can be used for water treatment and to keep water supply and equipment hygienic. Pathonil is launched by ACI Animal Health in June 2016. It is available in 100 ml bottle.

Countrywide Farmer's Campaign Program by ACI Seed

ACI Seed successfully conducted countrywide Farmer's Campaign Program (FCP) in August 2016. As an ongoing process, the SBU regularly organizes such programs to make farmers as well as other stakeholders aware of the importance of quality seeds. The program was carried through in regions of Chokoria, Lama, Podua, Srimangal and many other distant areas. Business Manager Sardar Ali Mortuza and Product Manager Abdullah Al Masud were present in many of the campaign programs to conduct the programs smoothly. Throughout the campaign program, participants got to know the role of ACI Seed in ensuring high-quality seeds of diverse crops and vegetables. An FCP included interactive presentations on farming methodology and activities of ACI seed. Moreover, informative and entertaining dramas related to the context of ACI's quality seed were shown. To make the program more interactive farmers were asked questions about ACI Seed. Winners of these spot quizzes were awarded ACI Seed products. Besides, sample seeds were given to opinion leaders among farmers. The FCP program got a huge response from the farmers countrywide in August 2016.

Bumper JaiboShar Launching Ceremony

ACI Fertilizer has successfully launched its own brand 'Bumper JaiboShar' on 25 August 2016 at Rangpur. Mr. Bashir Ahmed, Business Director of ACI Fertilizer attended the launching ceremony as the chief guest. Mr. Asadur Rahman, Product Executive gave an overview of the product and discussed several usage and benefits of the Organic Fertilizer. RSM of Rangpur, Mr. Firoz Hossain and his team of respective Area Managers and Marketing Officers from Rangpur, Dinajpur, Nilphamari&Thakurgaon arranged the whole ceremony. Moreover, 60 potential dealers were present there who gave valuable opinions to market the product with more promotion and achieve more sales.

ACI Fertilizer is the market leader of commercial organic fertilizer while partnering with WWR Biofertilizer Bangladesh Limited for Waste Concern JaiboShar and Rural Development Academy, Bogra for Polly JaiboShar. By launching "Bumper JaiboShar", ACI is now marketing own branded organic fertilizer. ACI Fertilizer is committed to supplying quality organic fertilizer to its customers.

AGM of AIRN Project by USAID

On 28 August 2016, The AGM of AIRN (Agriculture Input Retailer Network) project was arranged by USAID at BRAC CDM, Savar, Dhaka. Mr. Bashir Ahmed, Business Director, ACI Fertilizer, Mr. Yusuf Alam, Product Manager and Mr. Asadur Rahman, Product Executive were present in the AGM and discussed on the current scenario of the soil of Bangladesh and the importance of balanced fertilization for sustainable agricultural growth. AIRN is a platform for the retailers of the southern region of Bangladesh to exchange knowledge and experience to sell quality agriculture inputs. The main focus of this project is to build awareness for agricultural expansion through ensuring quality inputs. A total of 200 retailers/dealers from 19 districts of South Zone of Bangladesh attended the AGM. Discussion on existing business scenarios and more discussions on possible future partnership development of the retailers/dealers with USAID took place during the meeting.

Tour to Bhutan for 'Gypsar' High Achievers

ACI Fertilizer arranged a recreational tour to Bhutan for the Field Force as a recognition of their great achievement in Gypsar sales in 2015-16. The tour was held from 17 to 22 August 2016. The team visited different places namely Thimpu, Paro and Punakha in Bhutan. There were 15 team members including Product Manager, Zonal Sales Manager, Area Manager, Territory Officers and Sr. Executive, Accounts. The participants enjoyed a lot while visiting historical places and scenic natural beauty of Bhutan - the land of the thunder dragon.

ACI Motors Free Service Campaign 2016

In August 2016, ACI Motors arranged 16 Free Service Campaigns countrywide with more than 1500 participants and visitors. An array of services and activities were arranged including Free Tractor Servicing, Health Checkup, Tractor Display, Discount Spare Parts Zone, Games, Tea Stall etc. Moreover, customers could book new tractors. Throughout the program, 473 tractors received free servicing. Besides, 114 new tractors were booked and 10 tractors were delivered. At the Discount Spare Parts Zone, 8% discount was offered for all spare parts. There was also BDT 10,000 discount offer for new booking of tractors. Interactive games were arranged where all participants got T-shirts and the winners got attractive prizes. The news of Free Service Campaign was published in numerous national and local newspapers.

Photosynthesis Discovery in Wheat to Yield Faster Growing Crops

A new photosynthesis discovery at The University of Queensland may help breed faster-growing wheat crops that are better adapted to hotter, drier climates.The research team led by Queensland Alliance for Agriculture and Food Innovation researcher Professor Robert Henry has discovered that photosynthesis occurs in wheat seeds as well as in plant leaves. The research characterized a previously unknown photosynthetic C4 pathway in the seeds of wheat – which is not a C4 plant. Professor Henry said the team discovered that wheat has all the C4 genes in different parts, on different chromosomes. "Wheat's photosynthetic pathway evolved 100 million years ago when atmospheric carbon dioxide levels were up to 10 times higher than they are today. One theory is that as carbon dioxide began to decline, the plant's seeds evolved a C4 pathway to capture more sunlight to convert to energy," he said.

(Source: Crop Biotech Update, International Service for Acquisition of Agri-Biotech Applications. www.isaaa.org)

Professor Robert Henry's discovery turns half a century of plant biology on its head.

Photo Credit: The University of Queensland

Plants Adapting to Increasing Atmospheric CO_2

Plants are adapting to increasing atmospheric CO_2, according to a new study from the University of Southampton. The research, published in the journal *Global Change Biology*, provides insight into the long-term impacts of rising CO_2 and the implications for global food security and nature conservation. Lead author Professor Gail Taylor, from Biological Sciences at the University of Southampton, said: "Atmospheric CO_2 is rising -- emissions grew faster in the 2000s than the 1990s and the concentration of CO_2 reached 400 ppm for the first time in recorded history in 2013.

"On the one hand, more CO_2 is known to be good for plants, at least in the short-term because this drives up photosynthesis and plant growth including crop growth and food production. Indeed recent decades have seen the planet becoming greener as vegetation growth is stimulated as CO_2 rises. "Until now, few reports had given us any insight into the long-term impacts of rising CO_2 over multiple generations and none have been undertaken on the molecular signature underpinning such adaptation. One reason for this is that's it's a difficult problem to crack -- to find plants that have been exposed to conditions of the future, but are available today."

(Source: Agriculture and Food News, ScienceDaily. www.sciencedaily.com)

Plantagolanceolata -- the plantain found in the high carbon dioxide springs and the subject of this study.

Photo Credit: University of Southampton

Researchers Uncover 'Switch' that Triggers Plant Flowering

Scientists at the John Innes Centre (JIC) have uncovered a previously unknown step in the process of vernalization, which links an important gene responsible for flowering time to the proteins that regulate it. Previous research showed that flowering is suppressed by the FLOWERING LOCUS C (FLC) gene. In cold temperatures, proteins around which the gene is wrapped are progressively modified and this shuts off gene expression, eventually enabling the plant to switch from the 'growing' stage to the 'flowering' stage. Regulators involved in shutting off the FLC gene have been established, but how these regulators identify their correct targets is not known yet. The new research, led by JIC Professor Caroline Dean studied a population of mutated plants, and found one that failed to correctly respond to cold. When they tracked down where the mutation occurred, they found it to be a single base pair change within the FLC gene. Further experiments successfully identified how the protein VAL1 recognizes the DNA sequence within the FLC gene. In the plant which failed to correctly respond to cold, the mutation prevented that recognition, so FLC could not be shut off.

(Source: Crop Biotech Update, International Service for Acquisition of Agri-Biotech Applications. www.isaaa.org)

Photo Credit: John Innes Centre (JIC)

Ants: Crop Domestication a Balancing Act

Skinny lines of ants snake through the rainforest carrying leaves and flowers above their heads -- fertilizer for industrial-scale, underground fungus farms. Soon after the dinosaur extinctions 60 million years ago, the ancestors of leaf-cutter ants swapped a hunter-gatherer lifestyle for a bucolic existence on small-scale subsistence farms. A new study at the Smithsonian Tropical Research Institute (STRI) in Panama revealed that living relatives of these earliest fungus-farming ants still have not domesticated their crop, a challenge also faced by early human farmers.

Modern leaf-cutter ants can not live without their fungus and the fungus can not live without the ants -- in fact, young queens carry a bit from the nests where they were born when they fly out to establish a new nest. The fungus, in turn, does not waste energy-producing spores to reproduce itself. "For this sort of tight mutual relationship to develop, the interests of the ants and the fungi have to be completely aligned, like when business partners agree on all the terms in a contract," said Bill Wcislo, deputy director at the STRI and co-author of the new publication in the *Proceedings of the National Academy of Sciences.* "We found that the selfish interests of more primitive ancestors of leaf-cutting ants are still not in line with the selfish interests of their fungal partner, so complete domestication hasn't really happened yet."

(Source: Agriculture and Food News, ScienceDaily. www.sciencedaily.com)

The ant, *Mycocepurus smithii,* a living ancestor of modern leaf-cutter ants, farms its non-domesticated fungal cultivar in gardens that hang from the ceilings of underground nest chambers.

Photo Credit: David Nash

Making Pesticides Stick to Leaves Reduces Runoff

When farmers spray their fields with pesticides or other treatments, only 2 percent of the spray sticks to the plants. A significant portion of it typically bounces right off the plants, lands on the ground, and becomes part of the runoff that flows to streams and rivers -- often causing serious pollution. But a team of MIT researchers aims to fix that. By using a clever combination of two inexpensive additives to the spray, the researchers found they can drastically cut down on the amount of liquid that bounces off. The findings appear in the journal Nature Communications, in a paper by associate professor of mechanical engineering Kripa Varanasi, graduate student Maher Damak, research scientist Seyed Reza Mahmoudi, and former postdoc MD NasimHyder.

Previous attempts to reduce this droplet bounce rate have relied on additives such as surfactants, soaplike chemicals that reduce the surface tension of the droplets and cause them to spread more. But tests have shown that this provides only a small improvement; the speedy droplets bounce off while the surface tension is still changing, and the surfactants cause the spray to form smaller droplets that are more easily blown away. The new approach uses two different kinds of additives. The spray is divided into two portions, each receiving a different polymer substance. One gives the solution a negative electric charge; the other causes a positive charge. When two of the oppositely-charged droplets meet on a leaf surface, they form a hydrophilic (water attracting) "defect" that sticks to the surface and increases the retention of further droplets.

(Source: Agriculture and Food News, ScienceDaily. www.sciencedaily.com)

A team of researchers, including graduate student Maher Damak (left) and associate professor of mechanical engineering Kripa K. Varanasi, have found a way to drastically cut down on the amount of pesticide liquid that bounces off plants.

Photo Credit: Melanie Gonick

Edible Food Packaging Made from Milk

At the grocery store, most foods -- meats, breads, cheeses, snacks -- come wrapped in plastic packaging. Not only does this create a lot of non-recyclable, non-biodegradable waste, but thin plastic films are not great at preventing spoilage. And some plastics are suspected of leaching potentially harmful compounds into food. To address these issues, scientists are now developing a packaging film made of milk proteins -- and it is even edible. The researchers presented their work at the 252nd National Meeting & Exposition of the American Chemical Society (ACS). "The protein-based films are powerful oxygen blockers that help prevent food spoilage. When used in packaging, they could prevent food waste during distribution along the food chain," says research leader Peggy Tomasula, D.Sc. And spoiled food is just one issue. Current food packaging is mainly petroleum-based, which is not sustainable. It also does not degrade, creating tons of plastic waste that sits in landfills for years.

To create an all-around better packaging solution, Tomasula and colleagues at the U.S. Department of Agriculture are developing an environmentally friendly film made of the milk protein casein. These casein-based films are up to 500 times better than plastics at keeping oxygen away from food and, because they are derived from milk, are biodegradable, sustainable and edible. Some commercially available edible packaging varieties are already on the market, but these are made of starch, which is more porous and allows oxygen to seep through its microholes. The milk-based packaging, however, has smaller pores and can thus create a tighter network that keeps oxygen out.

(Source: Agriculture and Food News, ScienceDaily. www.sciencedaily.com)

Researchers tested their milk-protein film as a packaging for blocks of cheese.

Photo Credit: American Chemical Society

Could a Protein Become the Next Big Sweetener?

High-fructose corn syrup and sugar are on the outs with calorie-wary consumers. As a result, low- and no-calorie alternatives have become popular, and soon, there could be another option that tastes more sugar-like than other substitutes. Scientists report in ACS' *Journal of Agricultural and Food Chemistry* a step toward commercial production of a fruit protein called brazzein that is far sweeter than sugar -- and has fewer calories.

Brazzein first attracted attention as a potential sugar substitute years ago. Making it in large amounts, however, has been challenging. Purifying it from the West African fruit that produces it naturally would be difficult on a commercial scale, and efforts to engineer microorganisms to make the protein have so far yielded a not-so-sweet version in low quantities. Kwang-Hoon Kong and colleagues are working on a new approach using yeast to churn out brazzein. Working with Kluyveromyces lactis, the researchers coaxed the yeast to overproduce two proteins that are essential for assembling brazzein. By doing so, the team made 2.6 times more brazzein than they had before with the same organism. A panel of tasters found that the protein produced by this approach was more than 2,000 times sweeter than sugar.

(Source: Agriculture and Food News, ScienceDaily. www.sciencedaily.com)

Reducing broiler heat stress with light

A University of Georgia study has shown that extended lighting periods help enhance welfare and production of big broilers during high temperatures. The research involved observing the air temperature, velocity, relative humidity and deep-body temperature in broilers. Poultry extension scientist Brian Fairchild confirmed the research – that was carried out in six commercial poultry barns – revealed an interesting multifactorial process. He said, “We were looking at deep-body temperature during the hottest months of the year on the biggest birds, definitely a stressful time.” They discovered that the birds’ temperature actually increased during the night when the outdoor temperatures cooled. “This is opposite to what research shows happens in rats and humans,” he said. They found that lighting or a lack of it played a major role in this nighttime increase in body temperature. “The lights go off at dusk, the birds sit down and their litter is like a warm blanket,” Czarick said. “When sitting, a bird also decreases its surface area available for cooling by air movement.” They also observed to understand how feeding was directly affected by the time duration of the light and dark periods. They noticed that the birds went to rest soon after the lights were turned off but by extending the light period they could increase the feeding time, thus causing the birds’ core temperature to rise during the day as well. According to Czarick, growers concentrate too much on bird temperature during the day. “The key is how much the light programme affects bird temperature during the night. It really comes down to bird behavior.”

(Source: Far Eastern Agriculture.www.fareasternagriculture.com)

The study tried to understand how lighting affected poultry welfare overall.

PhotoCredit: cowgirljules/Flickr)

Believe it or not!

Bananas "trees" are actually the world's tallest herbaceous plant.

Despite their firm texture and rather dry mouth-feel, bananas are composed of 75% water.

The fruits grow off the main stems in large clusters that can weigh over 100 pounds, with up to 400 individual bananas per cluster!

Bananas are a tropical plant and originated in the Indonesia region; today they are grown in over 100 countries.

Sweet bananas come in a variety of colors – **green, yellow, red, purple,** or **brown**

Nutrition Chart

Nutrient Contents	Banana (1 medium or 126 g)
Calories	110
Fat	0 g
Sugars	19 g
Sodium	0 g
Potassium	450 mg
Carbohydrate	30 g
Protein	1 g

Source: USFDA Nutrition Information

Tips

To keep your vegetables and fruits fresher for longer, you can follow these simple tips:

- Keep potatoes, onions, and tomatoes in a cool, dry place, but not in the fridge. The cold will ruin their flavor.
- Store unripe fruits and veggies like pears, peaches, plums, kiwis, mangoes, apricots, avocados, melons, and bananas on the counter. Once they're ripe, move them to the fridge. Banana peels will turn dark brown, but it won't affect the flesh.
- Citrus fruits such as oranges, tangerines, lemons, and limes, will do fine for up to a week in a cool, dark place, away from direct sunlight, but you can lengthen their lives by storing them in the fridge in a mesh or perforated plastic bag.
- Store salad greens and fresh herbs in bags filled with a little air and sealed tightly.
- Other types of produce such as carrots, lettuce, and broccoli start to spoil as soon as they're picked, so place these in separate plastic bags in the crisper in your fridge Can improve soil fertility as certain mulch types decompose

(Tips courtesy: popsugar.com)

Sharing is caring!

Would you like to visit World's first Plastic Bottle Village in Bocas Del Toro, Panama?

The first of an entire village of plastic bottle homes is being constructed on Isla Colón in Bocas Del Toro, Panama. By recycling plastic bottles for use as insulation in what will eventually be 120 houses, Plastic Bottle Village founder Robert Bezeau is helping to preserve the island's luscious surroundings and diverting toxic materials from the landfill. But plastic offers other surprising benefits as well. The village is aiming to recycle over a million PET bottles.

With the Plastic Bottle Village, recyclable plastic bottles now have a new purpose: to create homes!