US ARMY GARRISON ANSBACT. DPM. ENVIRONMENTAL MANAGEMENT DIVISION (EMD)



SEMS

PREVENTION PREVENTION

OUR SEMS GOALS FOR THIS YEAR

- 1. Improve communications and awareness for reuse/ recycle
- 2. Promote a plastic bagfree garrison
- 3. Grow Your Own Greens -Create Urban Gardens throughout the Garrison

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2022	



SPECIAL POINTS OF INTERESTS:

Environmental Officer (EO) Training Link:

http://imcom-e.eotraining.com/

Visit our website:

https://home.army.mil/ ansbach/index.php/my-fort/ all-services/environmental

Plastic Planet by Christian Mattil & Pia Amberger

From nylon shirts to the white pipes in your home, plastics are an inescapable fact of our world. When you watch television, use a computer, or text on your phone, you are using plastics. But did you know that not all plastics are created equal? So where do plastics come from and what exactly are they?

Plastics are derived from materials found in nature, such as natural gas, oil, coal, minerals and plants. The very first plastics were made by nature. Did you know that rubber from a rubber tree is actually a plastic? In the 1800s when some materials like ivory or tortoise shell started to become scarce the interest to find and make replacement materials began. The first synthetic plastics were derived from a substance found in plants and trees - cellulose. Heated with chemicals, cellulose resulted in a new material that was extremely durable. The raw materials for the plastics we know today come from many places, but most plastics are made from the hydrocarbons that are readily available in natural gas, oil and coal.

The chemistry of plastics can be complex, but the basics are straightforward. With few exceptions, plastics are organic polymers, formed through polymerization of petrochemical monomers. This is why many plastics begin with "poly," such as polyethylene, polystyrene, and polypropylene. The word polymer comes from two Greek words: poly, meaning many, and meros, meaning parts or units. Polyvinyl chloride (PVC), for instance, is a plastic formed from the polymerization of vinyl chloride. To understand polymerization, imagine that you have several small ropes that you want connected. You decide to tie the ends together in order to form a longer rope. Each small rope is a monomer, the final long rope is a polymer, and the process of making the long rope is polymerization. At least 1,000 of these "small ropes" need to be connected to form a long rope. Applying this to PVC, vinyl chloride is the monomer, PVC is the polymer, and the chemical process to make the PVC is polymerization. The specific chemical/ used determines monomer the characteristics of the corresponding plastic created. Polymers often are made

of carbon and hydrogen and sometimes oxygen, nitrogen, sulfur, chlorine, fluorine, phosphorous, or silicon. The term "plastics" encompasses all these various polymers. Although there are many polymers, plastics in general are lightweight with significant degrees of strength. They can be molded, extruded, cast and blown into shapes and films or foams or even drawn into fibers for textiles. Many types of coatings, sealants and glues are actually plastics, too.

The different plastics are categorized according to the 1988 system created by the former Society of the Plastics Industry (SPI), which remains one of the most popular systems used today. The system numbers can be found on most plastic containers worldwide.

Type I: polyethylene terephthalate (PET/PETE/polyester) is used for most food jars and bottles, as well as for cleaning product containers. It can also be used as a wood finish on pianos, guitars, and vehicle interiors.

Type 2: high density polyethylene (HDPE) is used most notably in plastic grocery bags, as well as in food containers, garbage bags, and even some types of insulation and piping.

Type 3: polyvinyl chloride (PVC) is found in two forms. Soft PVC is used in toys, take-out boxes, squeeze bottles, shower curtains, medical tubing, and wire insulation. Rigid PVC is used for credit cards, piping, window frames, and for other construction materials.

Type 4: low density polyethylene (LDPE) is used most commonly in plastic grocery and trash bags, plastic wraps, milk carton coatings, food storage containers, lids, and in wire/cable coverings.

Type 5: polypropylene (PP) is used for food containers,

medicine

containers,

bottle caps, baby

bottles, thermal

vests, appliance

and car parts,

and for several

polystyrene (PS)

6:

other items.

Туре





SPI Plastic Labels¹ has three forms.

Reminders

Plastic Free Month I-30 April 2022, Garrison-wide

Bee Keeper Class 6 April 2022, 16:30 at Bee House, Soldier's Lake

Awareness Field Trip to Recycling Facility 8 April 2022, meet 08:45 at MP Station Katterbach

Expanded PS is made into food containers and packing peanuts. Harder/ Clear PS is made into plastic utensils, razors, and CD/DVD cases. Finally, high impact PS is made into things like hangers, license plate frames, and test tubes.

Type 7: All other plastics fall into this category; Nylon, polycarbonate (PC), and acrylic are just a few. Each have numerous applications, but properties vary between them. If you are curious, look for the numbers!

Types 2, 4, and 5 are the best for holding food, as they do not readily leach chemicals into food. Type 5, PP, is especially good for microwavable containers, due to its rigidity and heat resistance. Although PS, PET, PVC, and PC have been shown to leach chemicals into food, they are still commonly used for food. It is recommended to only use types 2, 4, and 5 for food. Although types 1, 2, and 4 are frequently recycled, all plastics are very difficult to break down completely, which has resulted in the excessive plastic waste that we see around the world.

This realization was the driving factor behind the first ever "Plastic Free Week" held at USAG Ansbach back in September 2018 and why it has now been turned into an annual month long event each April. This garrison-wide event demonstrates how we can drastically reduce our plastic consumption and waste. Look and listen for more details and daily tips on AFN and the Garrison's Facebook page. We hope that this event will show that reducing use of all plastics, especially single use plastics is doable for everyone. We are doing our part to preserve our home, the Earth.

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Local tree trimming expert Mr. Weimer instructing DPW workforce onsite at the USAG Ansbach meadow orchard near Neukirchen



DPW Roads & Grounds employee pruning a pear tree outside 12th CAB HQ Building 5850 as part of the Fruit Tree Pruning Course



Meadow Orchards by Max Weggenmann & Pia Amberger

A meadow orchard (Ger.: "Streuobstwiese") is a traditional form of fruit growing with tall fruit trees mostly of different ages and different species and varieties. Generally, meadow orchards are maintained for food production, however, differ significantly from modern forms of fruit growing, so called "plantations", as those comprise mainly of lowstemmed fruit tree varieties in monoculture.

The history of meadow orchards

The history of cultivation of meadow orchards began very early. Especially the Romans brought many of the species we know today, such as apple, pear, plum, cherry or walnut to Central Europe. These tree species were already cultivated in ancient Greece. The 17th and especially the 18th century are considered to be the actual period of origin of orchard cultivation. At that time, fruit cultivation outside the own garden and villages was politically promoted and partly even enforced. Fruit growing played an important role in the population. The supplying landscape was characterized by villages surrounded by a ring of fruit trees. With the expansion of the road network, avenues were created, which were also planted with fruit trees and connected the settlements.

At the beginning of the 20th century, the use of meadows and pastures in orchards received a significant boost when the dairy industry came into being and grassland farming became

more profitable as a result. Orchard cultivation then had its peak around the 1920s and 1930s. With the progress of scientific development, more than 6000 varieties of fruit were created, including at least 2700 varieties of apples, 800 varieties of pears, 400 varieties of cherries and 400 varieties of plums.

Meadow Orchards today

Between 1965 and 2010, there was a decline in meadow orchards of between 70-75%. The reasons for this are manifold but mainly to be found in the area of agricultural policy and construction and settlement. As early as the 1920s, Europe began the trend shift to fruit plantations, with only three varieties of apples and pears being planted. In 1953, a decision was made by the Federal Ministry of Food, according to which no more high trunks were to be cultivated. The establishment of fruit plantations was even promoted by the European Community until 1974 with premiums for the clearing of each high trunk fruit tree. This was purely due to economic interests. High trunks usually come into full yield only after 10 years, low trunks already in the third or fourth year.

Due to the historical establishment of meadow orchards, mainly in and around settlement areas, they were now also in the way of the creation of new residential and commercial areas. The same was true for road construction, which is why many fruit trees were removed.

Importance of meadow orchards

The decline and disappearance of meadow orchards from the cultivated landscape has negative impacts on ecological diversity and biodiversity. Meadow orchards are among the most species-rich biotopes in Central Europe. It offers the best conditions for a high species diversity. The lack of nutrients, due to the lack of fertilization, and the fact that it is only mowed twice a year means that no plant species can gain the upper hand. This means that numerous species can coexist. More than 5,000 animal and



plant species live in a meadow orchard. The meadows in the undergrowth are particularly rich in species and flowers and provide insects such as bees, bumblebees and butterflies with an abundant source of food. At the root area of trees, field mice, hedgehogs and shrews find their home. Together with hares, deer and birds, they feed on the fallen fruit. Mosses and lichens grow on tree trunks and beetles live in the cracked bark. The rotten parts of the wood are particularly valuable from an ecological point of view as many rare insect live in the deadwood. Songbirds and woodpeckers nest in hollow trunks or large knotholes. Abandoned caves and crevices serve as quarters for bats. Especially the old trees of a meadow orchard are ecologically valuable. The older a fruit tree gets, the more important it is for nature.

Meadow orchards at USAG Ansbach

In addition to individual fruit or nut trees found throughout the installation, USAG Ansbach maintains two meadow orchards: one south of Katterbach, near the village of Neukirchen, and one on the fire fighter training center at Urlas. As described in the previous section, it is therefore important to care for and maintain these trees entirely in the spirit of environmental protection and conservation. For this purpose, DPW EMD offers a fruit tree pruning course for employees of the O&M Roads and Grounds Division at least every two years. Again this year, in February 2022, approximately 15 employees participated. As a result, they are well trained to protect these valuable habitats and thus contribute effectively and sustainably to the promotion of biodiversity at USAG Ansbach.

Environmental Outreach: Ansbach Saub(a)er Clean Up Day

USAG Ansbach – Soldiers, community members and civilian employees participated in the annual Ansbach wide Spring Clean-Up Day on Saturday, 26 March 2022. During this year's event, a group of around 16 volunteers made up of Soldiers from the U.S. Army Garrison Ansbach (USAG Ansbach) and the 12th Combat Aviation Brigade (12th CAB) as well as civilian employees and community members met in the early hours of Saturday morning at the Main Gate of Katterbach Kaserne to take part in the off-post clean up event.

The event also known as "Saub(a)er", a clever play on the German word for clean (sauber) and the German name for a person that is decidedly not very clean and rather messy (Saubär, Pig Bear), is organized once a year by the city of Ansbach. For the past two years the event had to be postponed until the fall time due to COVID-19. However, this year it could once again be scheduled during its usual time of the year, at the beginning of Spring.

As is the case each year, U.S. and German community members from USAG Ansbach donned brightly yellow safety vests and gloves, grabbed waste pickers and a couple of sturdy trash bags and took to the streets, roadways, dirt roads and public areas around Barton Barracks, Bleidorn Housing, Katterbach Kaserne and Urlas, collecting all kinds of rubbish left behind offpost after the long winter months. Despite the still quite cold temperatures in the early hours of Saturday morning, the participating soldiers and civilians were in good spirits, socializing with family, friends, and colleagues alike. After a quick group photo, the individual groups split up and began picking up trash from the side of the road while enjoying the fresh air, good company and the sunshine that slowly warmed the day. At around noon, the hard-working helpers had collected around twelve trash bags full of various packaging materials and plastic bags, empty or broken glass bottles, aluminum cans, hundreds of cigarette buds, some wire mesh, a broken fender, and the catch of the day - one abandoned truck tire. Simultaneously, various Ansbach-based groups and organizations such as the Ansbach Fire Department, members of the Technisches Hilfswerk (THW, Ortsverband Ansbach) and assorted local youth clubs were busy cleaning up in other areas of the city.

Unlike previous years, the City of Ansbach could not host the free luncheon for all volunteers this time around as the premises usually used for the Thank You-Lunch have been reserved for Ukrainian refugees staying in Ansbach. However, all participants received a free food voucher for a local butcher shop sponsored by the city instead.

By Pia Amberger