

VITALITY DRINKS

VITALITY!
THAT'S THE
PURSUIT OF
LIFE, ISN'T IT?

KATHARINE
HEPBURN

SWISSÔTEL VITALITY DRINKS

The drinks suggested were created during a workshop held at the Preussische Spirituosen Manufaktur in Berlin.

The workshop was facilitated by Rick Ruetz from the International Bar School St Moritz.



MAKING INFUSIONS

The word infusion comes from the Latin infusio, 'to flow' and infundere, 'to pour'.

Why infusions?

- Spirits can be infused with fresh ingredients to change their taste and create new flavours. The resulting drinks are more personal, creative and fun.
- It is also an efficient way to make spectacular, hand-crafted and unique liquors that may completely transform your drinks list – at a low cost.



HOW TO MAKE INFUSIONS

Making infusions is easy; just follow these steps to get great results:

1. Choose a base spirit

Best are neutral liquors such as vodka to extract aromas. Feel free to use cost-effective entry-grade brands available within your market.

2. Choose aromas

Herbs, spices and fruit are the best aroma sources, especially if they are fresh. You can also use dried herbs and teas. We do not recommend using dried fruit.

3. Learn about the ingredients

When infusing natural ingredients into base spirits, the alcohol extracts all the flavours and active agents present in the natural product. For instance, when infusing rose flowers, the wax contained in the flower may also be extracted. Therefore, you need to learn as much as possible about any ingredient before infusing it in – to avoid health-damaging side-effects. Pay special attention to all potential allergens contained in natural products.

INSPIRATION: PÜROVEL FLOWERS

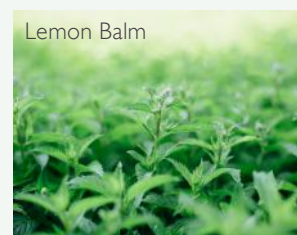
Did you know that the Swissôtel [Pürovel care products](#) and massage oils are from essential oils extracted out of Swiss flowers? Such flowers can be infused to create new flavours:

Lemon Balm makes an excellent refreshing and cooling tea. When mixed with a little black tea it's a welcome pick-me-up in the morning. It's nature's home-grown remedy for an upset stomach and muscle cramps, while the aroma of a fresh leaf placed on the tongue is an invigorating reminder of a happy life lived.

Lavender instils feelings of peace and tranquillity with nature's calming agent. Lavender soothes headaches, helps ease an upset stomach and calms restless thinking. Most importantly it helps us refresh the skin and activate blood circulation at the beginning of a bright new day.

Bee Balm is our queen bee with vibrant, joyful colours to behold and a scent that makes us dream of bergamot and citrus peel. Tender and floral, bee balm awakens our soul and brightens our every day.

Clary Sage is nature's apothecary. With endless medical remedies, it helps us heal and be well in many ways. It calms the nerves, helps us to digest, and awakens the mind. The herb is the perfect wake-up-call to a positive and energising new day!



Lemon Balm



Lavender



Bee Balm



Clary Sage

4. Prepare the ingredients

In general, look for fresh quality products, without any damage or decay. A handful of natural products is usually sufficient to extract a satisfying aroma. Make sure the ingredients are fully covered by the base spirit.

More particularly:

- Small berries: wash and leave whole, cut into the skin of hard berries, slice strawberries into pieces.
- Fruit such as pineapple, mango or similar: wash and slice into small pieces.
- Oranges, lemons and other citrus fruit: pare the zest, making sure not to include the white inner skin, which has a bitter flavour.
- Vanilla beans: cut lengthwise, remove the seeds.
- Herbs: use the whole herb, including stem.
- Chillies: cut lengthwise, making sure to remove the seeds to avoid too much spice.

5. Prepare a clean preserving jar

Place the washed ingredients and the base spirit into the jar and close the lid, making sure it is airtight. Don't forget to label the jar.

6. First Storage

Store the infusions in a cold, dark place and shake the jars 3 - 5 times per day.

GENERAL INFUSION TIMES

These times are more or less general. Test your own infusions regularly until they have the aroma you are aiming for. Trust your taste to make sure you get the best result.

- 1.5 to 2 hours: chillies
- 3 - 4 days: ingredients with an intensive aroma like basil, coriander, lemon balm, mint, dill, oregano, tarragon, thyme, limes, oranges and lemons, vanilla beans and peeled cucumbers.
- 1 week: ingredients with a subtle aroma like cassis, blueberries, melons, mangos, peaches, raspberries, cherries, goji berries and rosemary.
- 2 weeks: ingredients with a fine aroma such as pineapple, ginger, lemongrass. Note that ginger can be squeezed for a more subtle result.

7. Decanting

Once your infusion is complete, you must remove the ingredients by filtering the infused spirit through a tea strainer or a coffee filter into a bottle.

8. Second Storage

Infused spirit can be stored like normal liquor.

MAKING HOME-MADE SYRUPS

Syrup is a thick, concentrated liquid obtained by cooking sugary fruit, plant extracts or fruit juices.

Why make syrups?

- While infusions are made with alcoholic spirits, syrup lets you create new, exciting non-alcoholic drinks at a very limited cost.
- Syrups contains mostly sugar, but it only takes a small quantity to re-invent breakfast drinks, kid's beverages and surprising Vitality mixes for coffee breaks.

How to make syrups

Making syrups requires cooking; they can easily be prepared in collaboration with the kitchen team.

In general:

- To make syrup from sugary fruit, cook the fruit in water and reduce. Add sugar to the remaining liquid and cook again.
- Pour the hot concentrate into in sterile jars/glass containers. This is important for syrups made of fruit – otherwise it may get mouldy.
- Never pour hot syrup into cold jars – they may crack or even break. Always heat the jars beforehand!
- Once the jars are full, close them immediately so they remain airtight. Turn them over.

Thanks to the high sugar content, syrup can be stored in airtight containers for a long time. Nonetheless, we recommend you store syrup in the fridge.



SYRUP RECIPES

MANGO TURMERIC SYRUP

0.5 ltr fresh mango juice
0.8 ltr water
1.5 teaspoons turmeric
250 g sugar
4 g citric acid



Boil mango juice and turmeric for approx. 20 minutes. Filter the liquid, add sugar and citric acid and reduce to 750 ml.

GOJI SYRUP

160 dried goji berries
750 ml water
5 g citric acid
20 g sugar



Soak goji berries for approx. 20 minutes in lukewarm water. Mix and boil for approx. 30 minutes, then press through a strainer. Add 5 g citric acid and 200 g sugar and reduce to approx. 500 ml.

VANILLA SYRUP

25 g sugar
150 g water
3 vanilla beans
Juice of half a lemon



Scoop out 2 vanilla beans and cut lengthwise into small strips. Bring to a boil, stirring constantly, until the sugar has dissolved. Simmer approx. 10 minutes at low heat, then press through a strainer. Add a vanilla bean to the bottle and pour the syrup into it.

LEMON BALM AND MINT SYRUP

2 bunches lemon balm
2 bunches mint
4 lemons
40 g citric acid
2 kg sugar
2.5 ltr water



Pour the water into a large pot, remove stems from herbs and chop them slightly; slice lemons and add both to the pot. Add citric acid, stir and bring to a boil. Cover and let the liquid steep for at least 24 hours in the cooler. Press through a strainer and boil briefly with 2 kg sugar.

GINGER SYRUP

150 g ginger
500 ml water
250 g sugar
Zest of one lemon



Dice ginger into small pieces or run it through the blender. Pour water into a pot, add ginger and lemon zest and bring to a boil. Simmer with closed lid for 20 minutes at medium heat. Strain the mixture and place it back into the pot. Add sugar and reduce by half. When the mixture begins to foam, remove the syrup from the heat. The syrup is now ready and can be filled into bottles.

BEE BALM SYRUP

2 handfuls of fresh bee balm petals
1 organic lemon, sliced
½ teaspoon fennel seeds (optional)
500ml water
400g sugar



Mix the bee balm, lemon, fennel seeds (if using) and water in a bowl and let marinate overnight in the refrigerator.

Mix with sugar the next day and bring to a boil, reduce heat and let it simmer for 10 minutes. Chill and strain through a fine sieve. Pour into a preserving bottle and keep in the fridge for up to 2 months.

NON-ALCOHOLIC DRINKS AND MOCKTAILS

RECIPES

MORNING BOOSTER

Blender / Highball Glass

Juice of 1 orange
Juice of 1 grapefruit
Juice of 1 lime
A portion of lettuce
5 mint leaves
20 ml Agave Syrup
Ice

Garnish: Grapefruit chips, mint sprig, lettuce leaf, sesame seeds.

See picture on page 10

MORNING DRINK

Blender / Highball Glass

Juice of 1 orange
Juice of 1 grapefruit
2 bar spoons pine nuts
1 portion spinach
15 ml honey
20 ml water
Ice

Garnish: Grapefruit chips, fresh spinach, pine nuts

NUTRITIONAL COCKTAIL (BIRCHER DRINK)

Blender / Highball Glass

200 cl soy milk
½ banana
10 ml honey
7 bar spoons of oat flakes
1-2 bar spoons of pine nuts
(Based on seasonality, can also be prepared with fresh berries: blueberries, blackberries, raspberries)

Garnish: banana chips, oat flakes, pine nuts

See picture on page 10

VITALITY FACTS

Agave syrup is a natural sweetener produced out of the agave plant and comparable to fructose. Very sweet in taste, it has a much lower glycaemic index than table sugar.

Spinach offers a very interesting nutritional content, rich in iron and calcium. It might also protect against inflammatory problems and oxidative stress-related problems.

A lactose-free drink, this mix includes oat flake – a core ingredient of the traditional Bircher Muesli. Rich in fibre and proteins, oat flakes are nutritious and have cholesterol-lowering effects.

NON-ALCOHOLIC DRINKS AND MOCKTAILS

RECIPES

HOT MANGO

Tumbler / Build in the glass

3 tbsp mango puree
30 ml Monin Mango Syrup
20 ml freshly pressed lemon juice
70 ml fresh pressed orange juice
70 ml passion fruit
nectar

Mix all ingredients and heat to about 64 C

VITALITY FACTS

Also called the 'love fruit' for its aphrodisiac qualities, mango has a high level of Vitamin C and a rich fibrous content, which boosts the digestive functions.

POWER SHOT

Tumbler / Build in the glass

20 ml home-made goji syrup
80 ml cold banana juice

Pour both ingredients directly into a glass and stir.

Garnish: mint leaves

See picture on page 10

A powerful immune booster, goji berries provide a natural source of energy. The complex carbohydrates that make goji berries so yummy also raise blood sugar slowly, so you won't experience a sugar crash afterwards.

MORNING RAINBOW (FOR KIDS)

Blender / Tumbler

250 g frozen raspberries
250 g frozen mango
160 ml orange juice
160 ml milk

Mix raspberries and milk in a blender and pour into a glass. Blend mango and orange juice and carefully float as the next layer on top, like a pousse-café (B52). Serve with a straw.

Raspberries are a great source of electrolytes and minerals for kids! They contain a good amount of minerals like potassium, manganese, copper, iron and magnesium.



Chia Ginger



Nutritional Cocktail



Morning Booster



Emperor Pomegranate



Power Shot

ALCOHOLIC COCKTAILS

For the cocktail recipes, please note:

- You can create your own Vitality martini with home-made infusions using local and seasonal ingredients.
- For the first 4 recipes we suggest adding a few drops of infusion, which you can make yourself or order. This will completely transform your drinks.

RECIPES

GOJI MARTINI

Shaker / Cocktail (Martini) Glass

30 ml home-made goji syrup
30 ml vodka
Optional: 2-3 drops of vanilla infusion

Pour syrup and vodka after shaking into the chilled glass, add two drops of vanilla infusion and stir. You can also shake with the infusion. This drink has two versions: one with and one without infusion.

See picture on page 14

VITALITY FACTS

Goji berries are a nutritional powerhouse, packing healthy food energy into small servings. Their rich, sweet taste, along with their high fibre content, provides a feeling of fullness.

VANILLA DREAM

Shaker / Cocktail (Martini) Glass

20 ml white rum
20 ml home-made vanilla syrup
20 ml cream
Optional: 2-3 drops of coffee infusion

Pour syrup, rum and cream after shaking into the un-chilled glass, add two drops of coffee infusion and stir. You can also shake with the infusion. This drink has two versions: one with and one without infusion.

See picture on page 12

Vanilla has been used for centuries as an antioxidant and cognitive enhancing agent, and for good reason. Vanilla contains chemicals that activate receptors in a similar way to capsaicin, which is well known to reduce inflammation and improve mental performance.

MANGO MARTINI

Shaker / Cocktail (Martini) Glass

30 ml home-made mango turmeric syrup
30 ml gin
Optional: 2-3 drops of bitter orange infusion

Pour syrup and gin after shaking into the chilled glass, add two drops of bitter orange infusion and stir. You can also shake with the infusion. This drink has two versions: one with and one without infusion.

Turmeric, the bright yellow of the spice rainbow, is a powerful medicine that has long been used in the Chinese and Indian systems of medicine as an anti-inflammatory agent.



Vanilla Dream



Breakfast to go



Pepper Bell

ALCOHOLIC COCKTAILS

RECIPES

WALDMEISTER MARTINI

Shaker / Cocktail (Martini) Glass

30 ml home-made lemon balm and mint syrup
30 ml gin
Optional: 2-3 drops of waldmeister infusion

Pour syrup and gin after shaking into the chilled glass, add two drops of waldmeister infusion and stir. You can also shake with the infusion. This drink has two versions: one with and one without infusion.

VITALITY FACTS

Lemon balm calms the mind. It has been said for centuries that the pure, sweet aroma of lemon balm promotes a feeling of relaxation and calm.

PEPPER BELL

Shaker / Cocktail (Martini) Glass

50 ml Beefeater 24
15 ml lime juice
15 ml simple syrup
1/8 of red bell pepper
3 leaves of sage
1 bar spoon peppercorns

Cut the bell pepper into small pieces and add together with sage, peppercorns and simple syrup to a shaker and muddle. Add other ingredients together with ice and shake. Double strain into a pre-chilled martini glass. Garnish with a piece of bell pepper and sage leaf.

See picture on page 12

The nutrient content of bell peppers is impressive - it is a very good source of vitamin E and contains more than 30 different carotenoids. As a food that is rich in antioxidant and anti-inflammatory nutrients, bell pepper might provide us with important anti-cancer benefits.

GIN-GER TEA

Tumbler / Build in the glass / Hot

200 ml green tea (hot)
50 ml gin
25 ml lemon juice
35 ml home-made ginger syrup
1 bar spoon honey

Stir well.

See picture on page 14

Ginger has a long tradition of being very effective in alleviating symptoms of gastrointestinal distress. In herbal medicine, ginger is regarded as an excellent intestinal spasmolytic (a substance which relaxes and soothes digestion).



Goji Martini



Lemon Grass Lady



Gin-Ger Tea

ALCOHOLIC COCKTAILS

RECIPES

BREAKFAST TO GO

Shaker / Tumbler

50 ml dark tequila
20 ml maple syrup
1 egg (optional: organic egg)

Shake very well and serve on the rocks

Garnish: toast or cinnamon powder/ grated nutmeg

See picture on page 12

LEMON GRASS LADY

Shaker / Cocktail (Martini) Glass

30 ml lime juice
20 ml lemongrass infused simple syrup
60 ml gin

Pour the drink into the chilled glass, garnish with a lemongrass stick.

See picture on page 14

RAQUEL POMEGRANATE

Shaker / Cocktail (Martini) Glass

45 ml tea-infused gin
45 ml pomegranate juice
5 ml passion fruit puree
5 ml lemon juice
5 ml simple syrup

Add all ingredients and shake with ice. Double strain.

Garnish: soaked chia seeds

To prepare tea-infused gin: Brew 7 g lemon bush tea leaves. Add to 500 ml gin

VITALITY FACTS

Once regarded as a gift for kings, cinnamon lowers blood sugar levels and has a powerful anti-diabetic effect.

Lemongrass – the aromatic healer - is in extensive demand due to its antibacterial, anti-fungal and antimicrobial properties across Southeast Asia, as well as the African and American continents.

One of the oldest known fruits, pomegranate contains punicalagin which lowers cholesterol, but also lowers blood pressure and increases the speed at which heart blockages (atherosclerosis) melt away.

VITALITY SMOOTHIE TRIO

As part of our well-known range of Vitality drinks, we have created three different Vitality smoothies specially for spring - the smoothie trio.

Freshly squeezed fruit juices are an excellent remedy for spring fatigue. Our three smoothie specialities will ensure you get that energy boost throughout the day: a kick-off smoothie in the morning, a high-noon smoothie in the afternoon and a siesta smoothie in the evening.



VITALITY SMOOTHIE TRIO

RECIPES

THE KICK-OFF SMOOTHIE (RECIPE 1)

INGREDIENTS - makes 1 litre

Medium carrots	16 (approx. 1.3 kg)
Lemons	2
Fresh ginger	4 cm/1.5 inches

1. Peel lemon, wash carrots and carefully scratch the skin off the ginger using the edge of a spoon.
2. Pass all ingredients through a juicer.
3. Fill in small bottles or glasses and serve.

VITALITY FACTS

Bright and sunny, this juice is rich in fibre and full of antioxidants and vitamin A, thanks to carrots. The ginger will boost your metabolism in the morning, and the lemon juice is your healthy daily dose of vitamin C.

THE KICK-OFF SMOOTHIE (RECIPE 2)

INGREDIENTS - makes 1 litre

Ruby grapefruits	2
Oranges	2
Carrots	4
Ginger	1 cm/0.5 inch

1. Peel grapefruits and oranges, wash carrots and carefully scratch the skin off the ginger using the edge of a spoon.
2. Pass all ingredients through a juicer.
3. Fill in small bottles or glasses and serve.

If you prefer something with more citrus fruit, this juice has a similar colour.

VITALITY SMOOTHIE TRIO

RECIPES

THE HIGH-NOON SMOOTHIE

INGREDIENTS - makes 1 litre

Raspberries	300 g
Ripe banana	1
Plain organic yoghurt	200 g
Freshly squeezed orange juice	600 ml (approx. 6 oranges)

1. Put berries, banana and yoghurt in a blender and mix well.
2. With the blender running, add the orange juice until nicely blended into a creamy smoothie.
3. Fill in small bottles or glasses and serve.

Variation:

Instead of raspberries use blueberries, blackberries or strawberries.

VITALITY FACTS

This creamy smoothie is rich enough to count as lunch. The banana is loaded with vitamins and minerals, the yoghurt adds some calcium, the berries are not only delicious, but also full of antioxidants and fibre that keep our digestive system running. Freshly squeezed orange juice brings a touch of acidity as well as an extra portion of vitamins.

THE SIESTA SMOOTHIE

INGREDIENTS - makes 700 ml

Cored green apple	1
Cucumber	1
Fresh mint sprigs	4
Small leaves of kale	4
1 handful of spinach (or other greens such as lettuce)	
Juice of 1 lemon	

1. Starting with the apple, pass all ingredients through a juicer, finishing with the cucumber.
2. Fill in small bottles or glasses and serve.

The siesta smoothie is low in sugar but contains loads of nutrients. The mint is a natural aid to digestion and has an anti-inflammatory effect. A refreshing and light green juice that gives you more vitamins and minerals, including iron and B vitamins. A smooth refresher in the afternoon.

VITALITY ENERGY COFFEE

We can do a lot to enhance our' well-being. Swissôtel aims to be the perfect retreat for a spot of relaxation and re-energising.

A good start to the day begins with a balanced breakfast. This is why we have had our experts develop a series of recipes for energy coffees with invigorating spices.



VITALITY ENERGY COFFEE

RECIPES

HEALTHY SWISSÔTEL ENERGY COFFEE SPICE MIX.

INGREDIENTS - makes 30 g or approx. one small shake)

Ground cinnamon	4 tsp
Ground cardamom	2 tsp
Ground cloves	1 tsp
Ground ginger	2 tsp

1. Mix all ingredients together.
2. Put in a small shaker and serve with coffee.

VITALITY FACTS

In the late seventeenth century, English coffee houses served their brews black, with optional additions of ginger, clove, cinnamon or spearmint.

This is our Swissôtel take on fabulous flavours that awaken body, mind and spirit first thing in the morning. A flowery, yet woody-warm touch to kick-start your coffee aroma. A pinch or two can be sprinkled over a cup of freshly brewed black coffee or coffee with milk.

You can also flavour your ground coffee with the spice mix: mix one tablespoon for a milder aroma and two tablespoons for a more strongly flavoured aroma with 500 g of ground coffee.

FLAVOURED SUGAR

INGREDIENTS - makes 200 g

Vanilla pods	4
Sugar	200 g

1. Pulse vanilla seeds and sugar very quickly in a stand mixer.
2. Put sugar with the spent pod in a storage jar and leave to infuse for at least one week.
3. Serve with coffee.

CINNAMON SUGAR

INGREDIENTS - makes 200 g

Sugar	200g
Ground cinnamon	10 g
Cinnamon sticks (for decoration)	2

1. Mix sugar and ground cinnamon well.
2. Put sugar-cinnamon mix in a storage jar, adding the cinnamon sticks.
3. Serve with coffee.

VITALITY FACTS

These infused sugars add a subtle but lovely flavour to a cup of coffee.

VITALITY ENERGY COFFEE

RECIPES

FRUITY ROSE PETAL SYRUP

INGREDIENTS - makes 600 ml

Water	500 ml
Organic rose petals (dried or fresh)	4 tbsp
Lime, cut into slices	1
Cane sugar	400 g

1. Mix water, rose petals and lime and bring to the boil, stirring constantly.
2. Let the mixture cool and allow it to infuse overnight in the fridge.
3. Heat mixture in a pan, adding the sugar and stirring until it dissolves.
4. Bring to the boil, then reduce heat and let simmer for 15 minutes.
5. Let the mixture cool in the pan before straining it through a sieve.
6. Put in a sealable, decorative bottle.

SWEET AND WARM SYRUP

INGREDIENTS - makes 600 ml

Water	500 ml
Cinnamon sticks	2
Cardamom pods	2
Star anise	1
Cane sugar	400 g

1. Mix water and spices and allow to infuse overnight in the fridge.
2. Heat mixture in a pan, adding the sugar and stirring until it dissolves.
3. Bring to the boil, then reduce heat and let simmer for 15 minutes.
4. Let the mixture cool in the pan before straining it through a sieve.
5. Put in a sealable bottle.

VITALITY FACTS

FLAVOURED SUGAR SYRUPS

These fruity and flowery syrups are a great substitute for sugar, with wonderful aromatic properties. Just one tiny splash is enough.

The aromas range from sweet to warm to fruity. And blend wonderfully with the taste of coffee.

The information below has been collected to provide you with further background information:

For us, it's important that we capture flavours from natural sources, which is why we concentrate on extraction and distillation, with extraction being the main technique used.

DISTILLATION

You may recognise distillation as the process used to make spirits or essential oils, as it divides an extract into defined flavours or aromas. In steam distillation, the various boiling points of the ingredients are utilised by steaming a liquid within a closed system and letting the condensation cool through a side pipe, resulting in one substance in liquid form. This condensed liquid is then collected and can be used to add flavour.

For example, lemongrass can be used to extract citral, an aroma compound used for its strong lemony scent – stronger than that of lemons, oranges or limes themselves.

EXTRACTION

In extraction, the flavours are taken from a plant through a solvent such as water or alcohol. In general, the blossoms, roots or leaves of a plant are placed in the solvent and removed after a period of time – this is how herb flavour is given to a liqueur. The solvent is often heated to extract the flavour more quickly. The best example of this can be found in making tea.

While there are various methods of flavour extraction, here we focus on infusion, digestion and percolation.

INFUSION

Infusion (Latin: macerare = soak, soften, wear down) is the oldest, simplest and most used method of solid/liquid extraction. It is done at normal room temperatures, i.e. the solvent in which the plant material is placed is not heated.

Any container that can be properly sealed can be used for the infusion process; it can be of any size and made of any alcohol

or acid-resistant material (e.g. glass, wood, ceramics, tin-plated copper, stainless steel). The best option, however, is a special infusion container (see Figs. 1 & 2) that has adjustable filters above and below the plant material, to hold it below the solvent. An infusion container also has an air vent in the tightly sealable lid, as well as a drain valve at the lowest point in the container.

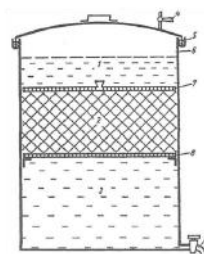


Fig. 1

Fig. 1: Infusion container - (1) solvent, (2) plant material, finely chopped, (3) solvent, (4) air vent, (5) tightly sealable lid, (6) container (copper, tin-plated, stoneware, glass), (7) top filter, (8) bottom filter (adjustable), (9) drain valve

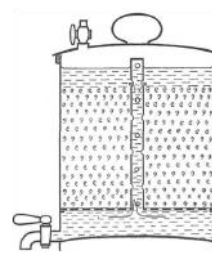


Fig. 2

Fig. 2: Infusion container with bottom filter and wooden shaft

Sometimes, traditional infusion containers are equipped with a long shaft in the centre that has several holes at regular intervals (Fig. 2). Thanks to this shaft, the liquid circulates, intensifying the extraction of the plant material. As the solvent is enriched by the extract, it becomes heavier and sinks through the filter to the bottom of the container; and the lighter solvent containing less extract rises to the top to begin the cycle again until maximum extraction is achieved.

Depending on the plant material to be extracted, the ratio between solvent and material may be anywhere from 1:3 to 1:10 and the process may take from three to 10 days. The process can be accelerated through stirring, recirculation or similar, and it is complete once the desired quality and amount of flavoured infusion has been extracted.

DIGESTION

Digestion (Latin: digere = arrange, organize, classify) is a solid/liquid extraction method in which the solvent is heated at a general temperature of between 40 to 60 °C. This accelerates the process, saving a significant amount of time when compared with infusion.

However, this will change plant material that is easily affected by heat, so that the flavour of the final extract from digestion may differ greatly from that gained by room temperature infusion. This is therefore not a process to be used spontaneously to save time.

Special digestion containers differ only from infusion containers in that they have a double casing for indirect heating. The digestion container must have a tight seal with an air vent and a safety valve to avoid loss of alcohol and to make sure the container does not become over-pressurised (see Fig. 3). The liquid within the double casing can be heated using steam or, for smaller containers, electricity or gas. The container must have a thermometer.

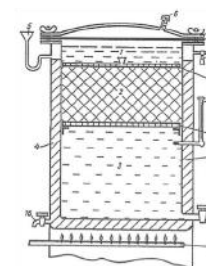


Fig. 3

Fig. 3: Digestion container - (1) solvent (2) plant material, (3) solvent, (4) water bath, (5) funnel to fill water bath, (6) safety valve, (7) screw-on cover, (8) insulation, (9) air vent for water bath, (10) filter cover, (11) interior thermometer, (12) bottom filter, (13) container (tin-plated copper), (14) drain valve for extract, (15) heat source (e.g. gas), (16) drain valve for water bath

Similar to the infusion process, the ratio used is approximately double to five times the amount of solvent to plant material. The amount of liquid must in any case cover the plant material completely. The extract may be drained only once it has cooled down.

Suitable distillation equipment may be used instead of a digestion container. This has the advantage that after the process has been completed, the alcohol from the solvent may be reused once it has been completely filtered.

PERCOLATION

A very practical extraction method is percolation (Latin: percolare = strain through). This process extracts flavours by slowly straining the solvent through the plant material at normal room temperatures. Fresh solvent is continuously fed through the plant material, which adds flavour through filtering. The simplest example of percolation is the filter coffee process.