### **GOOD HEALTH AND LONG LIFE**

#### Meanderings Of A Mead Maker

A Czar once wanted to discover the secret of long life, so he held an inquiry to find out which section of his population lived longest. He found it was the beekeepers and immediately presumed that honey was the life-giving food. A more detailed inquiry to find out how much honey it was necessary to eat revealed the alarming fact that all the beekeepers were far too poor to eat any honey at all, and they lived on the refuse that was left over from the harvest. Perhaps it was the mead that kept them going.

Kenneth K. Clark in Beekeeping.

ead is probably the oldest alcoholic drink known. The word for mead occurs in nearly all Indo-European languages. There is good reason to believe that mead was known some 12,000 years ago. It was certainly very popular in Anglo-Saxon times and in 'polite society' right up to the end of the 17th century.

The extraordinary long life of the ancient Britons has frequently provoked comment and speculation on the part of historians. Among the early Romans, Plutarch once observed "The Britons only begin to grow old at the age of 120" and when Pliny visited the British Isles he reported "These islanders consume great quantities of honey brew". Pollio Romulus wrote to Julius Ceasar, when over 100 years old, that he enjoyed a full sex life, which he attributed to drinking copiously of Welsh Mead. Virgil and Homer wrote about mead in glowing terms. The Greeks had a definite mead-making session. The mead was matured and kept for an orgy called a *Dionysia*. What they did on these occasions, under the influence of mead, must be left to the imagination. Hippocleides, for example, having drunk too much mead on his wedding night, stood on his head on the dining table, stark naked, waving his legs in the air while he sang a merry song. His father refused to let him take his bride!

Scandinavians expected to quaff mead in heaven out of the skulls of their enemies. On earth, the Vikings were wont to consume at least half a dozen *horns* of mead during a meal.

In more recent times, Samuel Pepys wrote in his diary for 1666 "Dined with two or three of the King's servants ... I ... had methyglin ... which did please me mightily". Methyglin, or spiced mead, was much liked by Queen Elizabeth I and she gave very detailed instructions as to which herbs should be used as flavourings - her recipe has survived to this day..

In the same century, Sir Kenelm Digby wrote: "The Meathe (mead) is singularly good for a consumption, stone, gravel, weak-sight and many more things. A chief burgomaster of Antwerp used for many years to drink no other drink than this and though he were an old man, he was of extraordinary vigour, had always a great appetite, good digestion and had every year a child.".

The "*birds and the bees*" would seem to be involved in the history of mead! The Moors wedding celebrations were sex-orgies where

the guests were made drunk on mead because they believed honey to be a love stimulant.

Indeed, in this country the word *honeymoon* comes from the practice of drinking mead during the month long celebrations which followed better-class weddings. In some parts it was the custom to send the bride to bed and then fill the bridegroom with mead until he could no longer stand. He was then carried to bed alongside his wife and it was believed he would then sire a son that night. If successful the maker of the mead was complimented on its quality. Is it possible that mead is the youth elixir of antiquity?

In most inns mead was sold along with ale and cider. The Anglo-Saxon word for mead was *alu* (cf. *ale*). Much mead was beer strength and made with hops. There was trouble in the British Army during the Napoleonic Wars when the strength of the troops' mead was reduced from 6% to 4%. The slow decline of mead as the national drink can be traced back to the Norman conquest for in the wake of the invasion came the first wine traders. Imports of grape wine rocketed when Henry II married Queen Eleanor of Aquitane, whose possessions included Bordeaux. The dissolution of the monasteries by Henry VIII put an end to monastic brewing. In the 18th century sugar replaced honey. The importation of cheap spirits and the Industrial Revolution, which involved the loss of rural skills such as home wine making, completed the decline.

The claims made for mead are almost as many and as widespread as those for honey. One would imagine that a daily dose of honey would cure a wooden leg! While there may be some truth in the therapeutic value, they would seem to be very much exaggerated. The chemical analysis of honey indicates nothing that substantiates such claims, although 181 substances have been found in it to date. Scientific proof is sadly lacking - *evidence* is subjective and really comes down to *If you believe it does you good, then it probably will!* The same cause and effect argument is seen when claiming that beekeepers rarely suffer rheumatism because they are stung by bees. The syllogism is:

- Beekeepers get stung.
- Beekeepers don't suffer from rheumatism.
- Therefore, bee stings prevent/cure rheumatism.

It is more likely that the regular exercise involved in moving heavy supers etc. in the sun and fresh air keeps the body free of *the rheumatics*. Still if you are paying someone a lot of money to apply bees to your skin in order to cure pain, you would *want* to believe it was doing you good. The same sort of argument occurs in the first quote - the *refuse* undoubtedly refers to the cappings which the peasant Russian beekeepers ate or turned into mead. It may or may not have been this which led to the longevity. However, I digress from the main topic - mead.

The latest fossil evidence suggests that bees existed and were producing honey 50 million years ago. Homo sapiens' mere 5 million years of evolution explains, perhaps, why bees have such a well organized society and why we are still fighting each other. I digress again ...

Early man hunted for honey as he did for many other foods (and as some people do today). A painting made in a rock shelter in the mountains of eastern Spain in Mesolithic times, probably about 7,000 B.C., survives to show how this was done. The combs were broken off from the nest and eaten - a balanced diet of wax, honey, pollen, brood and probably a few dead bees as well. Presumably little attempt was made to store honey. Gradually there occurred a shift from hunting for honey to keeping bees in purpose made hives made from local materials - in this country, bees were kept in straw baskets or skeps. The earliest known record of keeping bees in hives and harvesting their honey dates from 2,400 B.C. in Egypt. The practice of selecting the skeps with most honey - the heaviest ones - at the end of the year and killing the bees by placing the skep over a pit containing burning sulphur was developed. The honey would have been strained and stored in various containers, perhaps not completely sealed, thus allowing the stored honey to absorb moisture. Some of the honey is likely to have been unripe i.e. containing an excessive amount of water, and would have been fermented by wild yeasts which abound in the air. So by his attempts to preserve honey to use over a period, man probably introduced himself to a fermented alcoholic drink and found it to his liking! In this way, mead production is believed to have begun - the making of alcoholic beverages for man's comfort and pleasure, before the grape took over.

How then can we make some mead? Most books on wine making and beekeeping contain recipes for mead. Like most hobbies (including beekeeping), the process may be as simple or as complicated as you like - with all the associated apparatus you can afford. In recent years, there has been a resurgence of interest in home brewing and wine making. There has developed an industry to provide equipment and materials. No longer do we have to follow out-of-date recipes and rely on 'natural fermentation' or float rafts of baker's yeast on toast in open buckets or brew '*tonic ale*'. And, so long as you don't sell your results, it is perfectly legal. For this article we need not get too complicated, but we can make use of modern knowledge and the ease with which we can now obtain equipment.

I am surprised by the few beekeepers of my acquaintance who make mead and those who say they don't like the taste, considering the range of *tastes* that can be produced. Some of them, I suspect, have made mead in the past and produced something unpleasant - or even vinegar (= sour wine)! Or they may have purchased commercial mead which, in my experience, is always sickly sweet and strongly flavoured. Many years ago I bought a bottle of mead from a large wine shop in Soho, London. What was I doing there? Mind your own business - I did say **many** years ago! I asked the assistant if it was sweet. "Of course it is", he replied, "it is made from honey." I did not point out that *dry* wines are made from *sweet* grape juice. Why **are** commercial meads usually so sweet?

The type of honey used determines the flavour and bouquet of the finished product. Light coloured honey is best for making dry light meads with subtle flavours. Use dark honeys for strong flavoured sweet meads. Most beekeepers will use their own honey but if you use bought honey avoid eucalyptus honey from Australia - it makes

a mead with a most unpleasant flavour. Flavours in honey masked by the sweetness become more noticeable when the sugar is fermented. The quantity of the honey determines the alcoholic strength and final sweetness.

When making mead, yeast is added to the honey dissolved in water. During fermentation the yeast feeds on the sugar in the honey and splits it into carbon dioxide and alcohol. The carbon dioxide gas bubbles away leaving the alcohol behind (fortunately!). Yeast also needs nutrients and acid to keep it growing and working. These are lacking in honey and must be added. Tannin is also needed to give the mead astringency and to assist clarification. During fermentation the liquor is susceptible to spoilage by microorganisms, ever present in the air, the most important of which are the vinegar bacteria which convert alcohol into acetic acid (vinegar). To avoid competing with *Sarsons Vinegar*, utensils must be sterilised and air must be excluded during fermentation using an airlock.

# Let's make some mead!

## INGREDIENTS:

3 - 3 1/2 lb. honey
1/2 oz. citric acid.
1/2 tsp. tannin (or 1/2 cup black strong tea).
2 tsp. yeast nutrient.
Wine yeast (Maury yeast has been specially selected for mead but a General Purpose
Yeast will be suitable).
2 tsp. yeast nutrient & 1/4 tsp. yeast extract (e.g. 'Marmite') to provide vitamin B.
Water to 1 gal.
(S.G. approx. 1.100 = potential alcohol 13.4%)

#### METHOD:

You can obtain your equipment and ingredients from any wine making supplier.

Warm the honey in three times its own volume of water, stir to dissolve (avoid burning the honey), bring just to the boil and simmer for a couple of minutes. Remove the scum. Do not boil fast as

many desirable substances will be evaporated, causing loss of flavour and bouquet.

When cool, transfer to a 1 gal. glass jar (demijohn) previously well rinsed with hot water. Bring the remaining water to the boil and when cool add to the dissolved honey. Add the yeast, nutrient, tannin and acid. Fit an air lock (or plug the neck of the jar with cotton wool) and leave in a warm place. When fermentation is complete (when there are no more bubbles and it has begun to clear), siphon using a length of plastic tubing (or carefully decant) the mead into a clean jar leaving the sediment behind. When another deposit has formed, siphon again. When it no longer throws a sediment and is clear, bottle. If necessary, filter or add wine finings.

The above recipe should produce a *dry mead* containing about 13% alcohol. If the finished mead tastes rather sweet, delay bottling until you are sure fermentation has finished to avoid burst bottles. A *medium mead* would need about 4 lb. honey and a *sweet (or sack) mead* 4 1/2 lb.

Sultanas give extra flavour, body and smoothness to mead and nourish the yeast. Rinse 12 oz. sultanas in warm water and chop or mince. Ferment on the pulp, stir daily, and strain after 10 days.

Your mead will probably be drinkable after a year. Having made mead, don't be impatient to drink it - there is no comparison between young mead and the matured article. Brother Adam of Buckfast Abbey recommended maturing mead in sound oak casks for a full seven years before bottling. I have never achieved such perfection. At least hide a couple of bottles to mature and make some more. **5** gallons lasts almost twice as long as 1 gallon! And of course, if you are a beekeeper, you will enter a bottle of mead in the National Honey Show and your local Association Show. Having entered a bottle of mead at a local show, I approached the judge and told him that the mead he had awarded First Prize was awful. He looked rather surprised until I explained that the mead was mine! His reply was "You should have tasted the others"!

If you are a beekeeper and wish to use the honey remaining in cappings, you need to measure the amount of honey dissolved in your liquor. The old method was to float a new laid egg in the dissolved honey and when only a piece of shell the size of an old sixpence was showing, the amount of honey was correct. Nowadays, one can purchase an instrument called a hydrometer which is easy to use and much more reliable.

Place the cappings in a suitable container and add cold water. Stir to dissolve the honey, allow to stand a while and then strain. Take a hydrometer reading and adjust with honey or water to give the required starting gravity. More honey will increase the specific gravity, more water will lower it. Proceed as in the recipe above.

2 lb. honey *in* 1 gal. gives S.G. 1.060, potential alcohol 7.8%.
3 lb. honey *in* 1 gal. gives S.G. 1.090, potential alcohol 12%.
4 lb. honey *in* 1 gal. gives S.G. 1.120, potential alcohol 16.3%.

4 lb., honey added to 1 gal. = 3 lb. in 1 gal.

Dry Mead:	Starting S.G. 1.085-1.105.	Finish S.G. 0.990-1.000.
Medium		
Mead:	Starting S.G. 1.105-1.120.	Finish S.G. 1.000-1.005.
Sweet		
Mead:	Starting S.G. 1.120-1.130.	Finish S.G. 1.005-1.015.

If you add one equal quantity of water the *gravity* (not the Specific Gravity) will be reduced by half e.g. from 180 to 90 (or from S.G. 1.180 to 1.090).

When making a sweet mead it is a good plan to add half the total honey at the outset, and the remainder in 4 oz. lots each time the S.G. approaches 1.000

Mead is fermented honey and water. By adding other ingredients you may produce interesting variations. Originally, of course, herbs were added for medicinal purposes - so they say! Spices were added, I suspect, to mask the taint of vinegar etc. A famous drink of the well-to-do was known as *pyment* or *piment*. This was a mixture of grape juice (sometimes already fermented) and honey. Very often spices were added and the brew was then called *hippocras*. This had a great many variations with names associated with the Church such as *Pope, Cardinal* and *Bishop* and was, sometimes served hot in cold weather. Clerics were often criticised for their excessive taste for them. In 817 a local synod at Aix la

Chapelle tried to ban the clergy from drinking spiced wines. *Mulsom* was wine made into a long sweet drink with honey and water, its name being given to *mulled wine*. Stone bottles were filled with mulled mead to warm the occupants of the bed - and then the contents were drunk! *Braggot, Braggon* or *Bracket* was a mixture of ale or beer and honey and often spices. *Braggon* is mentioned favourably by Chaucer and was very popular in the 13th century. Mothering Sunday was known as Bracket Sunday in Lancashire, when this drink was served to the men and women *in service* visiting home.

However, here are the traditional variations:

Pyment: grape juice and honey.
Hippocras: pyment and herbs.
Cyser: apple juice and honey.
Morat: mulberry juice and honey.
Melomel: fruit juice (other than apple, grape or mulberry) and honey.
Metheglin: dry mead with herbs and spices.
Sack mead: sweet mead.

Hippocras is named after Hippocrates, the Greek physician and 'father of medicine'. The cloth bag that held the herbs was called the *hippocratic sleeve*.

Wales and Cornwall are famed for their honey and mead. Metheglin (or metheglyn) means medicine in both languages. The Welsh *meddyglyn* and the Cornish *medheklyn* derive from the Latin *medicus* and the Old English *hlynn* meaning liquor. Sack (*seco, sec, siccus*) simply means dry. Oddly, *Sack Mead* is a very *sweet* mead in contrast with dry mead.

Thus Water boils, parboils, and mundifies, Clears, cleanses, clarifies and purifies. But as it purgeth us from filth and stink, We must remember that it makes us drink, Metheglin, Bragget, Beer and headstrong Ale, (That can put colour in a visage pale) ... John Taylor ('Water Poet) 1580-1653.

Clara Furness in *Honey Wines and Beers (Northern Bee Books)* also gives the following:

*Clarre:* pyment. *Alicante wine:* morat. *Myritis:* bilberries and honey. *Rhodomel:* rose petals and honey. *Miodomel:* hops and honey.

These variations ferment more readily and mature more quickly. However the addition of spices may cause hazes which will have to be removed by filtration or fining with proprietary finings. If you already make wine, replace the sugar in the recipe with honey using 1 lb. for 3/4 lb. sugar to allow for the water content of the honey.

# Metheglin I - Queen Elizabeth's Recipe

Take of sweet briar leaves and thyme each one bushel, rosemary half a bushel, bay leaves one peck. See the these ingredients in a furnace full of water (probably not less than 120 gallons) boil for half an hour, pour the whole into a vat and then when cooled to a proper temperature (approx. 75 deg. F.) strain. Add to every 6 gals. of the strained liquor a gallon of fine honey and work the mixture together for half an hour. Repeat the stirring occasionally for two days, then boil the liquor afresh, skim it till it becomes clear and return it to the vat to cool, when reduced to a proper temperature (approx. 80 deg. F.) pour it into a vessel from which fresh ale or beer has just been emptied, work it for three days and tun. When fit to be stopped down, tie up a bag of beaten cloves and mace (about half an ounce of each) and suspend it in the liquor from the bung hole. When it has stood for half a year it will be fit for use.

## Modern Version

Make a gallon of mead as described above. Suspend in the finished mead a muslin bag containing 1/2 oz. rosemary, 1/2 oz. bay leaves, 1/2 oz. thyme and 1/4 oz. sweet briar. Taste the mead daily until the flavour is to your liking and remove the herbs.

## <u>Metheglin II</u>

4 1/2 lb. dark honey.
1 oz. each of mace, cloves, cinnamon, bruised ginger, thin rinds of 1 lemon & 1 orange.
Simmer together, strain, cool.
Add yeast, nutrient, acid, tannin. Ferment. Needs long maturation.

#### **Pyment**

pint white grape concentrate.
 lb. heather honey.
 1/4 oz. citric acid.
 Yeast, nutrient, tannin.

Combine ingredients and ferment.

To make *Hippocras*:

1 Add 1/4 oz. cinnamon at start of fermentation.

2 Add 1 knob of bruised root ginger and the juice and peel (no pith) of 1 small orange, boiled in a pint of water for 20 minutes and strained over the honey etc.

3. Add **one** of the herbs or flowers from the following:

Parsley, Marjoram, Cowslip (4 oz. fresh, 1 tsp. dried).

Mint, Sage, Caraway seeds, Meadowsweet, Lemon thyme, Elderflowers, Balm (2 oz. fresh, 1/2 tsp. dried).

Mace (1 oz. fresh, 1/4 tsp. dried).

A mixture of any of the above herbs can be used - do not exceed 2 - 4 oz. Ferment on the pulp for 4 days, stir daily, strain, etc.

Sachets of herbs are available for making mulls and herbal teas. Experiment with these and whole and powdered spices from the kitchen (nutmeg, peppercorns, coriander, citrus peel, etc.). Infuse the herbs in the mead and remove when the strength of flavour is sufficient. Powdered herbs should be placed in a muslin bag.

Sprigs of thyme, rosemary or fennel standing in a bottle of brilliantly clear mead makes an unusual gift.

### Cheat's Melomel or Cyser

Supermarkets stock a wide range of inexpensive fruit juices. A range of melomels can easily be made using 1 litre of juice (plus yeast, nutrient, tannin and 1 tsp. citric acid) and 3 lb. honey. Cyser can be produced using 1 - 3 litres of apple juice with 3 lb. honey and

a little less acid and tannin (1/4 tsp. acid and a pinch of grape tannin). Added *body* can be achieved by boiling two bananas in sufficient water to cover & adding the strained infusion.

A hybrid between cyser and pyment can be made using 1 lb. honey, 1 pint of white grape concentrate and 4 pints of apple juice. 2 lb. of raisins could be substituted for the grape concentrate.

Many concentrates are available from wine making shops. Follow the instructions for making a wine but substitute honey for the sugar.

Recipes show variation in acid and tannin content, depending to some extent on the ingredients. I have not, you will notice, tried to convert recipes to metric quantities. I have tried to be consistent, but recipes are always a guide - experiment. You *can* measure the acid content, but taste is usually sufficient. Our ancestors may have had their fair share of failures - but the long history of mead suggests they had their successes - without scientific knowledge or equipment. If you like the end result - drink it and make some more! I once made a wine that I thought was undrinkable. I donated it to a friend's party! The party was to entertain some French visitors - they thought the wine excellent and a great aperitif!!

#### **Internet Recipes**

If you *surf the Internet* you will find a wealth of information about mead and mead making. There seems to be much interest in America.

Just remember that mead is reputed to be an aphrodisiac. I Have murly finshed thiss Artackel aNd aaaaa Bootle orf Me oWn MEED - CHAIRS!

Brian ('Pollio Romulus') Dennis.

Brian P. Dennis started keeping bees in 1976 as an antidote to the stress of teaching! The stress increased as did his interest in bees. He holds the BBKA Certificate in Apiculture and operates about 30 colonies.

He has served on the committees of the Bee Improvement & Bee Breeders Association, British Beekeepers Association and the Northamptonshire Beekeepers Association. Several articles of his have been published in the bee press as well as letters to 'officials' concerning beekeeping issues.

Wine making and beer brewing have been hobbies for more years than he has kept bees - a failed ambition is to achieve more production than consumption! However, the two interests, wine making and beekeeping became combined in the making of mead. He has entered mead at local and national shows and gained numerous awards.

Having retired from full-time teaching, he hopes to have more time to improve the quality of both his beekeeping and his mead making and more time to enjoy both.

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# MEAD

by Brian P. Dennis

A brief history of mead making containing recipes for making mead including cyser, hippocras, melomel, metheglin, pyment, etc.