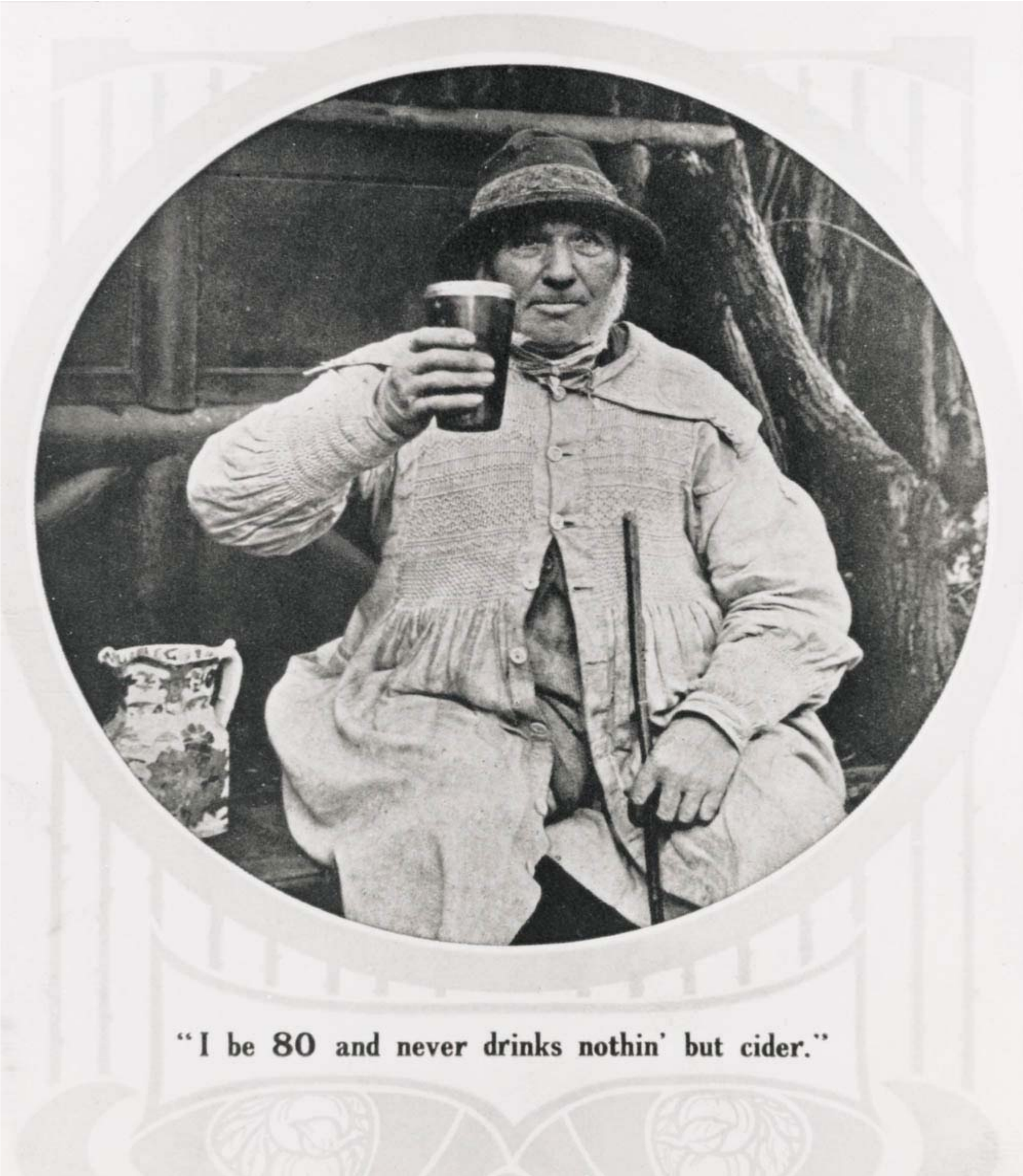
THE WINSTON CHURCHILL MEMORIAL TRUST
CHURCHILL FELLOWSHIP 2001

Farm Cider Production

Patrick Murphy



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ACKNOWLEDGMENTS

This Report details the visits and the findings from my Churchill Fellowship, which was carried out through the months of September through December 2002.

The encouragement to apply for a Churchill Fellowship came from Mr Mike Stephens of Mike Stephens and Associates Pty Ltd and Doctor Peter Elyard of Preferred Futures Pty Ltd two men who display vision and action in the rural communities of Australia.

This report would not have been possible without the invaluable support, encouragement and organisational skills of my wife Wendy and our two sons Finnian and Ethan.

Last and by no means least, I would like to express my enduring gratitude to the officers, employees, volunteers and contributors of the Winston Churchill Memorial Trust. Their tireless efforts in advancing the interests of Australia through the support of ordinary people with passion and vision set a fine example for the ambassador that each Fellow becomes.

FELLOWSHIP OBJECTIVE

To study all aspects of on farm cider production, tourism and culture.

Originally intended to closely investigate the industry in the UK, further research indicated that the study of major cider production regions in France and Spain could offer greater depth to this study.

EXECUTIVE SUMMARY

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HIGHLIGHTS

UK

Mr Peter Mitchell, Director Core Food and Drink, Pershore College, Worcestershire, Core Food and Drink is the sole provider of industry training and centre for cider making research and development in the UK.

Mr Julian Temperly Somerset Cider Brandy Company Ltd and Burrow Hill Cider Company. A very diverse and successful on farm business.

Thatchers Cider. The third largest cider producer in the UK and the most aggressive in the development of innovative cider products.

Knights Cider. Growing very rapidly from on farm producers to commercial producers with some of the best orchard management practices in the UK cider business.

Southern Ireland

Gunter Hink. Johnny Jump Up cider, Kilbaecinty, near Galway. An entirely contract label retailed on farm and wholesaled to local hotels.

Gleesons cider – A farm cidery that has recently invested large amounts of money in order to upscale their production.

The Netherlands

Gerhard Weisman, Nerderlandse Vereniging Van Vruchtenwijn fabrinkanten. The representative body of fruit wine producers in the Netherlands.

France

Cote Albret Cidre, Bretagne. La Haire, Remie. M. Loic and Robert Bertholot. Leaders and technological innovators in the French farm based cidre business.

Doctor Catherine Renard. Rennes. Institut National de la Recherche Agronomique (INRA), L'Unite de Recherches Cidricoles - Biotransformation des Fruits. The cider research institute for France,

Spain

Xabier Carlos, Payes Des Basque, Zapiain Sidre cider maker. Zapiain have recently developed from on farm to commercial premises.

Anna Picinelli, Association Espanola de Sidras (AESI) Asturias. Centre for industry research.

Al Gaitero Sidra, Villaviciosa, Asturias. The largest producer of sparkling sidra in Spain.

Museo de la Sidra, Plaza Principe de Asturias, Nava. This is the largest cider museum in the world.

FINDINGS

Cider is an alcoholic beverage of less than 8% alcohol by volume, made from the fermented apple juice of cider apples (craft cider), dessert fruit, concentrated apple juice or a combination of the three.

Essentially, the making of cider was a cottage industry in origin and today many devotees make their own cider or apple wine at home. Cottage ciders were a seasonal product and a standard drink with the meal of the day.

Depending upon the origin of the juice and techniques used in production, there will be enormous variations in the style of the resulting beverage. Its strength may also be far higher than for commercial cider, which normally uses very particular varieties broadly categorised as sweets, sharps, bittersweets and bittersharps.

Perry is a similarly traditional English alcoholic beverage, made like cider, but from pears instead of apples, this report does not consider perry.

The numbers of farm producers of cider in every cider-producing region are diminishing as technology and transport allows the larger producers to overcome the seasonal and quality problems that have characterized the cider industry. This is despite the increased consumption of cider and government support for the on farm industry in every country visited.

Those that remain have developed a tourism focus and a practice of outsourcing expertise that allows them to produce a standard of product that suits the existing expectations of the chosen market. Marginal producers are producing a cider using purely traditional techniques, the resulting product is seasonal and the characteristics are suited to an older market expectation.

Cider occupies a very specific cultural and culinary niche, particularly on mainland Europe.

DISSEMINATION OF FINDINGS

Delivery of cider making short course via RMIT resources.
Presentation at the 2003 Australian Institute of Food Science and Technology National Conference.
Lecturing to students at RMIT University as part of the Food Studies module for the Bachelor of Consumer Science Degree.
Delivery of findings to members of the Australian Apple and Pear Growers Association.
Consulting work to tourism and food production groups via RMIT.
Delivery of report to Horticulture Australia.
Delivery of report to various tourism bodies.

PROGRAM

United Kingdom

Mr Peter Mitchell, Core Food and Drink, Pershore Group of Colleges, Pershore, Worcestershire. Completion of the second last module towards the British Technical Education Certificate (BTEC) of Professional Development - Cider making.
Centre of excellence for the cider industry. The only cider training institute in the UK, the also offer specialist expertise for the cider industry in the form of training, research and development, analytical and microbial testing, cider making and contract fruit pressing service. Core also produces their own brand of cider and offer consulting services to the on farm industry. Core are founding members of the Three Counties Cider Association.

Mr Robert Price The National Association of Cider Makers (NACM), Food and Drink Society, 6 Catherine Street, London WC2B5JJ. The NACM represent the interests of the larger cider producers in the UK. and have recently introduced a code of practice for cider making.

Martin Barnfield. Barnfield Cider, Broadway Road, Broadway, Worcestershire. Produce 3000 gallons of cider per year which is retailed from their farm outlet. Cider has been produced on the site since the early 1800's.

Tom Norbury. Norbury's Black Bull Cider Co. Tom Founded his cidery from a blend of purchased cider apples and juicing apples from his commercial orchard. He produces 3000 gallons of cider per year that are fermented and bottled at Core. His sales outlet is a local garden centre. All advertising is done via regional highway signage.

The Monkey House. Woodmancote, Worcestershire. The Monkey House is a continuation of a preexisting ciderhouse. Cider, according to local legend, has been sold on site for over 500 years. The orchards were not replanted and the Monkey House now retails a cider made specifically for them by Bulmers. A visit is like a step back in time to medieval England. The cider is served at room temperature from a jug. Service is via the stable door of an old thatched roof bakehouse.

Keith Knight. Knights Cider Ltd, Crumpton Oaks. First planted in 1973 and produced his first ciders in 1979. An extensive planting programme begun in 1991 has yielded 200 acres of productive orchards by 2002. Keith consults to smaller farm producers on the development process.

Tom Oliver. Oliver's Cider and Perry, Stanksbridge, Ocle Pychard, Herefordshire. Tom operates a tourism venture built around his small cidery. He has some antique equipment and is using a bed and breakfast to generate income until his cider production is large enough, He is a traditional producer though one of the few that has completed formal training in cider production.

Ivor and Suzie Dunkerton. Dunkertons Cider Co. Leominster, Herefordshire. Ivor and Suzie purchased an existing but run down orchard in 1981 and became fully organic in 1988. The farm is very heavily focused on tourism with a gourmet restaurant which opened in 1994. Total production is around 20,000 gallons per year.

Core Food and Drink. Second visit. Two weeks formal training in cider making and completion of BTEC in cidermaking.

Carl Langstrom, Marketing Manager UK. HP Bulmer ltd. The Cider Mills, Plough Lane, Herefordshire. Bulmers is the worlds largest cider maker, producing in excess of 55 million gallons of cider per year. Regarded as an 'industrial' cidermaker, Bulmers are involved in a price war in the UK with Mathew Clarke PLC. They are the leaders in production technology in the UK and make a point of maintaining the production of some older style ciders for smaller outlets.

Brian Lewis, Production Manager. Westons Cider. Westons use a combination of tradition and technology. They are very tourist focused and operate a restaurant and shop on site for visitors. They are, arguably, the fourth largest cider producer in the UK.

Cider Museum Herefordshire. The story of traditional farm cider making is told through displays and exhibits of equipment, books, bottles, implements, labels and advertising.

Julian Temperly. Burrow Hill Cider Co and Royal Distillery Ltd, Pass Vale Farm, Burrow Hill, Kingsbury Episcopi, Martock, Somerset. Julian is regarded as an outspoken expert in cider production. His range of traditional product, methode champenoise cider and cider brandy receives wide acclamation for its innovation and balance. He produces around 100000 gallons of cider per year from 140 acres of orchard. Cider has been made at Burrow Hill for 150 years.

John Heck. Hecks Farmhouse Cider, 9-11 Middle Leigh, Street, Somerset. John's family has been making cider since 1896. The cider is a blend of juice from their own orchard and from neighboring farms. It is fermented and sold in draught from oak barrels. They produce around 8000 gallons of cider per year.

Martin Thatcher. Thatchers Cider Co Ltd., Myrtle Farm, Sandford, Winscombe, Somerset. Martin is the great grandson of William Thatcher who commenced making cider at Myrtle Farm in 1904. Thatchers are one of the top four producers in the UK, producing around 2 million gallons a year using a combination of traditional practice and modern technique. Thatchers also produce a range of ciders for smaller brands.

James Coules. The Cider Place, Cherry Tree Farm, Ilketshall, St Lawrence, Near Beccles. The Cider Place is primarily an apple juice retailer and produce 800 gallons of cider per year. The cider is matured for at least two years in oak stanchions prior to sale.

Y Gasgen, St Johns Square, Cardiff, Glamorgan, Wales. Retail a range of local and English ciders. Very traditional in its style with a lot of history.

Lord Caradoc, Station Road, Port Talbot, Wales. A range of English Cider served with Welsh style. Cider tends to be a bit acetic in draught but the locals enjoy the bite.

Black Rat Cider, Moles Brewery, 5 Merlin Way, Bowerhill, Melksham, Wiltshire. A brand only. Thatchers produce the cider, Moles Brewery market and distribute the product.

Philippa Sprott. Nadder Valley Cider Company, Wordsworth Road, Salisbury, Wiltshire. Philippa has been producing cider from purchased cider and dessert apple via leased equipment at the Hop Back Brewery since 1995. Producing around 6000 gallons.

Ireland

Gunter Hink. Johnny Jump Up cider, Kilbaecinty, near Galway. Gunter made cider without an orchard for three years under the Johnny Jump Up label. The cider is now produced entirely under contract and retails 10,000 litres of cider a year; at least that's' what he says.

Bernie Power. Four Winds Cider, Gentian Hill, Salthill, Galway. Four Winds Cider is a very small farm affair. Bernie produces a small amount that is available at her bed and breakfast. Some years there is excess and she sells this to the local pub.

Factory visit. Stag cider, Inches Brewery, Clonmel. An industrial cider made to order through the lab.

Peter Mathews. Marketing Manager, Guinness Ice Cider, Guiness Brewery, Dublin. Guinness are a part of Diageo Pty Ltd, the largest beverage producer in the world. Ice Cider is a product they are keen to develop though they are selectively distributing it at the moment.

Michael Gleason. Gleason's Cider, Clonmel. An industrial cidery that has grown 'out of its farm' in the last 12 months following the rapid growth in cider consumption in Ireland.

The Netherlands

Gerhard Weisman, Nerderlandse Vereniging Van Vruchtenwijn fabrinkanten. The representative body of fruit wine producers in the Netherlands. Wine style cider is the major fruit wine and is primarily produced in the Maastricht area.

Diderich Stimple. Maastricht Vruchtenwijn, Maastricht. One of the largest on farm producers of the still wine style cider. Diderich is looking to grow his business but is finding it difficult because of the transport costs to relatively small markets. Cider toursim in the Netherlands is not supported by Government.

France

Cote Albret Cidre, Bretagne. La Haire, Remie. M. Loic and Robert Bertholot. One of the most progressive producers in France and the first producers to identify the succession of bacteria used in the French method. Leaders of the Federation Des Fabricants et Negociants en Produits Cidricoles de Bretagne et Normandie, an industry body advising the SNIC

Doctor Catherine Renard. Rennes. Institut National de la Recherche Agronomique (INRA), L'Unite de Recherches Cidricoles Biotransformation des Fruits. The cider research institute for France. Governemtn agency that conducts the majority of nutritional, chemical and analysis of cider in France.

M. Andre. Ducoulombier. Paris. Syndicat National des Industries Cidricoles (SNIC). An industry body that represents the interests of the cider industry to the Belgium based Cider and Fruit Wine Industries of the EEC.

Spain

Xabier Carlos. Zapiain Sidre, Donastia San Sebastian, Payes Des Basque.

A very competitive lageros which had its beginnings in the dessert apples grown on the orchard. Now going through a technological improvement and export development process.

Susana Ovin. Errkalde Etxea, Donastia San Sebatian, Payes Des Basque.
Susana is the English speaking daughter of Eloy Ovin who owns and operates this small llagar in the hills above Donastia. Sidra is sold on farm in hand filled 750 ml bottles.

Asturias
Anna Picinelli, Association Espanola de Sidras (AESI). Centre for industry research. The center for research, training, quality and cider farm development in Spain.

Carlos Ballesteros, Cidre Fanjul, Tinnana de Siero, Nava. One of the larger farm producers who now specialize in natural cider, still white wine style cider and cider vinegar. Carlos distributes as far as Madrid.

Juan Rodriguez. Sidra J. Rodriguez, Gijon. A small on farm lageros producing natural cider from apples on the property. Fermentation is in chestnut barrels and bottling is done by hand.

Doctor Alfredo Martinez, Association de Lageros de Asturias (ALA), Oviedo. Representative body for on farm producers of natural cider in Asturias.

Jose Maria Osoro Fernandez, Association de Lageros de Asturias (ALA), Oviedo. Representative body for on farm producers of natural cider in Asturias.

Miguel Hevia. Association Sparkling Sidra Asturias (ASSA), Villaviciosa. Representative body for on farm producers of sparkling cider in Asturias.

Celestino Corteno. Al Gaitero Cider, Villaviciosa. The largest producer of sparkling sidra in Spain with around 60% of total consumption, a volume of around 25 million litres of carbonated dry, brut and sweet sidra per year. A very sophisticated plant by Spanish standards.

Museo de la Sidra, Plaza Principe de Asturias, Nava. The largest cider museum in the world. Showing equipment up to 300 years old and a tradition over 1000 years old.

Galicia
Walter Soltau, Sidra Galicia, Calle Bajada a la paya, 142 – Saians, 36392, Vigo, Galicia. Walter is a German resident in Galicia and is one of the few sidra producers of the area. Whilst apple production in Galicia is limited Walter sees opportunity in the increase in tourism and the strong sidra culture of Northern Spain.

BACKGROUND

Australia

Australian apple producers are increasingly under pressure to lower production costs to compete in a global market. One consequence is that the size of a viable apple orchard is increasing and the level of sophistication required to maintain a profitable orchard business is becoming very difficult for many of the existing farmers. The result is the removal of orchards and the further dislocation of rural communities as families and opportunities leave the district. There are no obvious reasons to suggest that this trend will ease as the global trend of specialisation continues.

A combination of cider production and tourism can provide opportunities for apple growers whose location is suited to take advantage of the resources that wine tourism attracts. By overlaying a map of apple producing regions and cool climate vineyards we can see that they occupy the same geographic area. Regional cider production can offer an extended experience for visitors to these areas with little effort required to draw them to the area or beverage.

In some areas the possibility of utilising existing vineyard resources to produce the cider may be available.

The cider culture in Australia did not develop in the same way as that of other European colonies such as the United Sates, a market which has growth over 300% in the past 10 years, and South Africa, the largest per capita consumers of cider in the world, yet we also have the Anglo-Celtic heritage in which apple cider is a significant cultural affirmation. That cultural affirmation is also potentially of benefit to immigrants, many of whom come to Australia from countries where cider is known, who are looking for an understanding of the identity of Anglo Celtic Australian culture.

Despite that limited culture of cider in Australia consumption of the beverage has been growing at around 15% per annum for the past several years.

Cider is not one product and the beverage primarily occupies a position as either a wine or beer style product. The name evolved from a Hebrew word ‘Shekar’ which means ‘strong drink’ and, as the apple moved from the primeval apple forest of Kazakhstan along the Silk Route, most of the European Continent made use of the easily fermented juice. Over the millenniums cider, and the apple, has also assumed a role in the culture of many peoples.

SUMMARY

Farm cider makers in many countries continue to follow their individual traditions for the production of cider and the various craft associations support these traditions. Apple cider is defined as an alcoholic beverage made from apple juice and containing less than 8% alcohol by volume.

In France (cidre), Spain (sidre, sidra and sydre) and Belgium (cidre) is mainly consumed as a low alcohol alternative to white wines. Furthermore, in France and Spain cider is typically produced from cider apples, as opposed to dessert apples, and remains firmly anchored in the countries culinary traditions where it accompanies meals served in venues of a specific nature. The natural, slightly effervescent and cloudy, cider of Northern Spain is also drunk as a refreshing beverage, as opportunity allows, throughout the day.

In Great Britain and Ireland cider is normally regarded as an alternative to beer and is widely available in pubs on draught as well as in large bottles and cans.

Germany, The Netherlands and Denmark have a long tradition of fruit wines and apfelwein, a dry, slightly sparkling or still product that competes with white wines for a position on the table.

Both producers and consumers view the beverage as having a seasonal nature, indeed as the product is stored in its traditional English oak cask at the bar its' nature changes so dramatically that the cider can be unrecognisable week to week.

From the Northern Spanish sidre and roast chestnut snack in early winter to the French crepes and cidre in the spring, cider has evolved to take a role within with the individual agricultural communities.

Although the markets for cider are smaller than those for wine, beer or spirits it is a fact that in recent years US, British, Irish and some Western European cider sales have enjoyed one of the fastest growth rates of all alcoholic beverages.

EU Consumption of cider per capita 1998
(Data courtesy of the Cider and Fruit Wine Industries of the EEC)

Country	Apple cider (l)	Fruit wine (l)
Ireland	10.2	-
UK	9	-
SF	5.2	1.4
France	2	-
Spain	1.8	-
Sweden	1.26	-
Germany	1.2	0.38
Belgium	1	0.1
Denmark	0.33	1.35
Netherlands	0.16	0.35

Whilst the origins of cider have been lost with the passage of time Greek, Roman and Hebrew records show that the beverage has been produced for over 2,000 years.

United Kingdom

The National Association of Cider Makers (NACM) states that the principal commercial cider (or cyder) counties today are Devon, Gloucestershire, Herefordshire, Kent, Norfolk, Somerset, Sussex and Worcestershire.

There are approaching 18,000 acres (4,000 hectares) of cider apple orchards in England.

The modern English cider industry directly employs some 3,500 people. Like many wine producers, however, cider makers may own orchards of their own, but also buy in vast quantities of cider apples from independent growers.

One major cider maker, for example, owns 40 acres (16 hectares) of orchard (both for research and supply), but has supply contracts for as long as 30 years covering 800 acres (320 hectares) owned by 34 independent growers. Thus, many members of the surrounding rural communities depend upon the industry for all or part of their income, although not directly employed.

The UK cider market can be divided into two distinct groups – on farm cider producers, usually producing less than 3,000 gallons of cider per year in order to avoid professional cider making tarrifs; and commercial producers who have a professional distribution system and dominate the market. As a generalisation the farm cider industry promulgates traditional practices and often that tradition is more of an idealised perception of past practices than a dedication to producing a cider that the general community will perceive as a quality product.

Examples of this type of philosophy can be seen in many primary and secondary industries, such as French wine production, where tradition has prevented the uptake of ‘new’ techniques, equipment and product styles.

The On Farm Cider Experience

The experience related here is a composite and generalised experience of visits to the small farm cideries. Many of these cideries are probably not economically sound.

Cider at an English farm cidery is a seasonal experience. If you go to a cidery too late in the year, or too early, (as we did) the cider will be old, stocks may be diminished and the product experienced may not be the same as you would get during the peak season. One or two months after harvesting is regarded as the best time for a visit.

The cidery entry point is a typical farm driveway complete with potholes and, usually, mud. Driving through the orchard to the sales point is an enjoyable experience no matter what time of year your visit. Whilst there is a lot of variation in the architecture of the buildings at the cidery, from thatched cottage to modern brick veneer buildings, the sales point has a low ceiling and the walls are lined with plastic or wooden storage casks of around 25 – 50 litres. Fruit flies are present in the room; the aroma of apples and vinegar fills the air.

There are plastic cups available for you to sample the ciders and a variety of cider blends that line the walls of the room.

The cider maker is usually available to tell you about the apples used and will often be found behind a small counter at the back of the room or will come into the tasting room from the house or farm as you make your way through the cider styles.

If you make the decision to purchase some cider you inform the cider maker and present him with your containers. Most often the containers are two to five litre plastic bottles that are then filled from the casks. The cost varies but is most often around two pounds for five litres.

Production Techniques
First, the apples are washed and then reduced to a pulp ('pomace'). Originally, in small-scale production, this was done by beating the apples in a stone or wooden trough. Later, on a larger scale, the pomace was made in a 'cider mill' — a large horse-drawn stone wheel revolving on its side in a circular trough. The latter process was still in use as late as 1947.

Today the apples pass between two cylinders equipped with sharp knives which revolved at high speed and complete the same operation in a fraction of the time. The pomace is then formed into a 'cheese', made up of layers of pomace and coarse cloth the cheese is then pressed. Commercial 'industrial' cider companies use a much more sophisticated press system.

The apple juice settles in oak vats (or, for 'white' cider, stainless steel vats) before being pumped into vessels where fermentation is promptly begun by natural yeasts, which are present on and in the skins of the apples. Cultivated yeasts are sometimes added.

For dry cider, fermentation is allowed to reach full completion; ciders of varying sweetness are created by stopping fermentation at desired specific gravities or by sweetening followed by inactivation of the yeast. If a secondary fermentation is allowed in the bottle, the natural carbon dioxide produced will make a sparkling cider, sometimes termed a 'champagne cider'. Sparkling cider produced in this way (closely related to the traditional method of producing champagne) may now only be called simply 'sparkling cider', largely as a result of protectionist moves by the champagne producers.

Traditional production practices are best exampled by the question of the use of apple juice concentrate (AJC) and the presence of acetic acid in the product.
The common practice amongst craft cider makers is to utilise fresh apples rather than concentrate. I have defined craft cider makers as those producing less than 3,000 litres of cider as above such levels licensing regulations come into effect.

The product is generally served still, is a golden colour, has no head, has a prevalent acetic flavour which develops over time and the temperature of the beverage at service is generally slightly cooler than ambient.

Fermentation is generally through the agency of wild yeasts although cultured yeast is added where fermentations are reluctant or sluggish.

This product has a very loyal following and Bulmers actually produce a product of this style for one of the more historic cider houses – The Monkey Bar. A tumble down thatched cottage where the cider is served at room temperature from a jug. Service is via the stable door of an old thatched roof bakehouse.

The diminishing appreciation of a good acetic bite in cider is a common characteristic in all of the markets I examined. Those considered industry leaders in the UK, France and Spain are producing cider with no acetic character. Traditional cider drinkers consider this to be a backwards step though the producers consider it an investment in the future rather than a loss of an existing cash flow.

Reliance on the juice from freshly crushed apples ensures that the chemical nature of the raw material will vary from year to year. Without remedial action this impacts on the product in many ways but produces a product of character, romance and excitement. Similarly, the volumes of cider able to be produced will be seasonal and the ability to maintain supply volumes could be impacted on.

I admire those craftsmen who, with an innate sense of the health and nature of their cider, are able to regularly produce exceptional cider with no other aid than their physical senses. Many of the current on farm cider makers in the UK however, would do much better to make use of the professional practices and services offered by organisations specialising in the technology of production.

Similarly, though less strictly in practice, the use of adjuncts, such as sugar, during fermentation, is not considered to be a part of traditional practice. Though adding some form of meat to the fermentation vessel is a traditional method of ensuring adequate nutrient for yeast growth.

Commercial producers on the other hand utilise combinations of both traditional methods and available technology. Practices are flexible though the single major traditional technique maintained is the use of wood for the maturation of the cider post fermentation. The UK use English oak, France and Spain use chestnut.

Product Diversity

Sweet, dry, draught, scrumpy, still wine, methode champenoise, and cider brandy are the more common cider style products and 'new' competitive diversity seems to express itself in niche products such as cider with lemongrass or elderberry.

Peter Mitchell of Core Food and Drink is of the opinion that the cider industry is ready for a revival. There has been expansion followed by a period of slowdown and adjustment.

One major concern in the UK industry is that cider is perceived as an unfashionable, cheap form of alcohol. The caricature of a cider drinker has aspects of the destitute drunkard with a brown paper bag of liquor.

There are four major methods that the UK cider industry sees as presenting opportunities to lift the profile of cider above its current position as a cheap form of alcohol. Three of these perceptions relate to shifting the category of cider and the fourth concerns the quality of the experience at the farm:

1. Duplicate existing grape products. This is primarily exampled through still white and methode champenoise style apple wines. Julian Temperly, of Somerset cider and Royal Distillery, has been producing an excellent methode champenoise style product for some years but is moving away from it as his cider brandy business increases. In his business the transport costs per ml of alcohol lead him

to promote his cider brandy and he does not see a great competitive future for methode champenoise cider, mainly due to transport and production costs.

2. Develop a UK market for existing apple wine style products from other countries. The wine style cider products of France and Spain have some minor history of popular consumption in the UK though, as a generalisation, the products from both of those countries, with some notable exceptions such as El Gaitero in Spain, have a taste that is very specific and may prove to be challenging to a culture with a palate that is unused to unique flavours. Another motivation for the push towards wine style production in the UK is the much greater profit level available in the wine category.
3. Develop innovative products that retain some of the traditional cider attributes with an exciting twist. Thatchers are the champions of this stream of thought and have released products such as cider with lemongrass, to dubious market acclaim.
4. Increase the standard of product on farm. Many of the ciders sold at traditional farm cideries are of a very low standard. The lack of hygiene is evident and the high level of acetic acid is sometimes the least of the products faults. Visitors to the cidery are expected to bring their own containers and the product is generally oxidised after sitting in the cask for an indeterminate length of time. Despite government support via cider tourist routes, promotions and international recognition of the cultural aspects of the beverage, the standard varies considerably.

Cider in the UK is taxed at ½ the rate of beer, which is taxed at ½ the rate of wine, which is taxed at ½ the rate of spirits. In Australia however the beer and cider tax rates are on a par. In the opinion of some producer associations the tax rates in the UK will eventually equal those of beer and the smaller commercial producers who compete with beer at the moment will be unable to continue their current pricing policy.

Industry Snapshot

The UK cider industry is the largest in the world, consuming approximately 75 times more cider per capita than Australians, and utilising an estimated 45% of total UK apple production. The major market share is held by four companies who compete on a cost basis, several other businesses produce a consistent product utilising modern hygiene technology, sometimes subcontracted from the majors, and these few produce higher margin product such as wine style or, in one case, distilled cider.

Recorded sales figures indicate that cider accounts for only 2.5% of the total UK market for alcoholic beverages and recent estimates are that cider accounts for between 4% and 4.5% of total alcohol consumed per capita.

The UK industry currently faces a number of challenges:

1. Industry rationalisation. The recent decrease in Bulmers share price, with potential losses of around 40 million pounds for 2001/2002 financial year. Their withdrawal from South Africa and the closure of their Perth plant in Australia all indicate a rationalisation for their particular business*. They have, however, recently invested in production and distribution facilities that give them great market strength in the USA, China and the UK.

   Three Directors of one cider production company, one of the ten larger producers by volume sales in the UK, are currently awaiting their day in court following a planned contamination of Bulmers production in attempt to fill the supply gap and increase their own sales. This style of corporate industrial espionage is indicative of an industry under some fairly intense pressure.

** Bulmers commenced negotiations to sell their Australasian operations to Carlton United Breweries in December 2002. If successful CUB will supply close to 100% consumed cider in Australasia.*

2. The dependence of the industry on a beer competitive product that maintains price competition through favourable tax position that could soon change. The only cider that can compete on a price basis with beer is that which contains a high percentage of water. Currently some of the popular brands contain as little as 17% apple juice.
3. The various low quality farm producers corrupt the marketing image of apple cider. This has proven to be a significant retarding factor on the growth of the business despite the significant investment the UK government has made in formal tourism campaigns such as the three counties cider trail.
4. The nature of a 'traditional' industry is one that values a theoretical and unchanging perception of correct product identity. This is despite the fact that the various regions have minor differences in product expectation. In the face of rapidly changing consumer preferences traditional products, marketing systems and production techniques often reduce the competitiveness of an industry attempting to entice a new consumer base.
5. The current perception of cider as a cheap form of alcohol is both good and bad – everyone has a cider experience though the perception is one that does not encourage consumption of cider as a life style affirmation beverage.
6. The diversified product nature of beverages called 'cider' – scrumpy, draught still product, sparkling long beverage, methode champenoise, brandy, fortified wine style, and liqueur creates confusion without accurately defined product identities for the consumer.

In my opinion however, the strength of the beverage as a product with strong positive consumer associations remains undiminished.

Ireland

This market is dominated by the English cider product and is very similar to England but shows one distinct difference; In Ireland cider is a premium product and competes well with beer at the bar.

Advertising for products is different to the English market positioning. The ads' are sophisticated and Bulmers Cider is sold with the slogan 'Time for you'. I would guess that most consumers appreciate the thought.

Bulmers product is the only cider commonly available on tap and from Off Licence premises. The product size ranges from three litre flagons of 'Strongbow Dry' to the canned 375 ml varieties and, unlike England where stubbies are plastic; the stubbies of cider in Ireland are made of glass.

Significance – Glass gives a greater impression of quality and equates the products with the premium long beverage range.

There is one immediate difference in the packaging range of cider available, whilst in England the bottled range exceeds the canned range, here the canned range is greater than the bottled range.

The shelves and taps are dominated by Bulmers. The Guinness product looks like a mixed spirit ‘Ready To Drink’ style beverage. Inch Brewery’s Stag Cider have imitated the feel of the Bulmers Strongbow label and used golden colours and a pointed diagram of a Stag leaping the length of the can. .

The Four Winds Cider was the only non carbonated product we found in Ireland; it is produced by Bernie Powers, an expatriate Englishwoman who believes that sales would be there if she chased them.

The Netherlands
Australia has little to learn from this market. Distribution is limited, cider tourism does not exist and those few who are producing cider are struggling to find acceptance for their still wine style product amongst the predominantly beer and wine drinking public.

France
The production of cider (cidre) in France is concentrated in the North West of the country in the provinces of Bretagne, Normandy and Payes de Ague. The cidre is packaged in a 750 ml wine bottle; is a caramel colour, has a huge floral/vanilla nose and with an alcohol content of around 2 – 4.5% has significant levels of residual sugar. The product is sold by the bottle only and costs around 2-3 Euro in comparison to 4-30 Euro for wine.

All cidre production areas have marked and identified tourism cidre trails.

Like England, and we were to find later, Spain, the numbers of on farm producers are decreasing steadily with 60 - 75% of the market supplied by one company – who have gone through rapid growth since purchasing the cidre business of Pernod Ricard several months ago.

Interestingly Bulmers attempted to enter the French market place to find very little acceptance of their product outside the nightclub and Western Pub circuits.

The main reason given for the decrease in farm production is that the farmers do not follow market preference. Once again the product is regarded as too acetic, seasonal and unpredictable.

The product is primarily a wine style product with a very specific production technique that differs in many ways from the English style production at 5 points

1. Keeving (defecation). This process allows physical processes to occour that separate the apple solids from the juice. Simultaneously chemical processes occour that oxidize the juice and reduce the available nutrients for the fermentative bacteria.
2. Microbes used. Loic Bertholot of Cote Albret Cidre identified three years ago that there is a succession of five different types of bacteria throughout the fermentation. His cidre is now produced by inoculation rather than natural colonisation.

3. Fermentation period. The low fermentation temperature of French cidre, in combination with the specific bacteria, whilst essential for the specific flavours of the cidre, gives a fermentation time of up to four months prior to maturation.
4. Final Product. The slightly carbonated, sweet floral nature of French cidre is, at first, a bit of a shock to the palate, particularly without food.
5. Packaging. French cidre is packaged in the same way as wine, without the accompanying sales tag.

The drinking of French cidre is strongly associated with the culinary experience of crepes. Cidre is rarely available at bars or hotels and never available in quantities less than 750 ml. The creperie experience seems to be the driving force behind the consumption of cidre outside the provinces where the product is made.

Spain

The production of Spanish cider (sidra) is concentrated in the North Western Provinces of Payes de Basque, Asturia and, to a lesser extent, Galicia. This area of Spain has been relatively inaccessible and displays a strong Celtic culture that seems to be more Irish than Ireland. The area has an identified and marked tourism sidra trail.

There are three types of sidra produced, a natural unfiltered sidra that is very slightly carbonated, typical of the on farm produce this style accounts for around 55% of total sidra production; a filtered natural still sidra that competes with white wine; and a carbonated sparkling style sidra, a fairly modern product that accounts for around 40% of total sidra production.

The name for an on farm sidra is *Llagar* and fermentation is produced generally by wild yeast. Once fermented to dryness, the sidra is matured in chestnut barrels of up to 36,000 litre capacity. Invariably the local communities in the smaller towns drink their sidra directly from cups filled at the barrel via a jet of sidra from a narrow nozzle inserted into the barrel. This gave rise in larger llagars to the establishment of the sidreria where food was served and the sidra maker would select the appropriate sidra to serve at the time.

As towns grew the sidreria centralised and became a restaurant where numbers of llagars supplied their sidra in smaller casks. With the availability of bottles the casks were replaced and the style of pouring from the bottle gave rise to the escanciador. The escanciador is the barman in the sidreria and the pouring of sidra to emulate the burst and effervescence given by the jet from the barrel is a significant cultural event.

The escanciador raises the opened bottle at arms length with their elbow crooked over their head. The glass is held at arms length at the waist. While the escanciador gazes dispassionately into the distance the sidra is poured in a thin stream onto the rim of the glass to a level of around ½ full. The drinker then drinks the bulk of the sidra whilst it is still sparkling and splashes the dregs onto the sawdust-covered floor. The glass is replaced on the bar to await further attention.

Sidra is available at general stores outside these specific venues but is not available in general bars or restaurants. Sidrerias far outnumber other alcohol outlets in Northern Spain

The numbers of farm based llagars has been decreasing significantly since around 1998. From 2000 to 2001 the number of on farm llagars registered with AESI decreased from 62 to 48. Many of the farmers who were producing sidra are now supplying their apples to the larger commercial llagars. Others are diversifying into dairy and beef production.

Sparkling sidra is produced almost exclusively by El Gaitero (The Bagpiper) Sidra and supplied from this one factory to all of Spain. Whilst the visit was conducted entirely in Spanish it is interesting to note that El Gaitero have been operating since 1861 though they only began producing carbonated sidra for 40 years.

CONCLUSION

- Small to medium sized apple producers in Europe face the same economic future as Australian apple producers.
- Apple cider is used as a deliberate diversification strategy in commercial orchards, particularly in the UK.
- That the consumption of apple cider is increasing in Western Europe.
- That Australia's' single largest visitor market comes from Western Europe and the UK.
- The term 'apple cider' is applied to a range of apple based beverages across almost every beverage category.
- Apple cider has strong cultural and culinary tradition, particularly in Anglo Celtic cultures.
- The technology of apple cider production, and the resulting cider product, varies amongst cultural groups.
- Successful farm production of cider is dependent on the use of available technology.
- Small volume farm cider can add significant attraction value to tourism enterprises.
- Apple cider can be made with the juice of cider apples, some varieties of culinary apple and apple juice concentrate.
- Apple cider is not bound by the same ingredient regulations as grape based beverages.
- Governments in the UK, France and Spain see value in investing in research, support and promotional mechanisms for the cider industry.
- Research into the health benefits of apple cider show similarities to the results promoted from red wine research.
- The production of apple cider can be undertaken using wine making equipment.
- The technology used to produce carbonated apple cider is more expensive and complex, for a lesser return, than that used to make wine style, or still, apple cider.

RECOMMENDATIONS

- That apple cider production is encouraged as a diversification tool for challenged apple growers, particularly those that exist amongst established vineyard enterprises and tourism areas.
- That any style of apple cider developed be engineered to complement existing cultural tourism nuances in any particular area.
- That still wine style apple ciders be researched thoroughly prior to investment. Significant expertise in the production of cider is required to produce these products successfully.
- That where an apple orchardist intends to commence a cider enterprise the viability of doing so in conjunction with an amenable vineyard is investigated.
- That specialist product targeting modern consumer tastes is pursued.
- That further investigation into the viable development of cider apple orchards in Australia is undertaken.
- That, whilst consumption increases are relatively new in Australia, apple cider production and sale be viewed as a long-term business proposition.
- That, not withstanding recent changes to labeling regulations, apple growers be encouraged to have some level of ownership in cider enterprises to guard their interests against the use of imported apple juice concentrate.
- That Australian Research Institutes be supported in investigating the potential health benefits of apple cider.
- That apple cider production is partly viewed as providing incentive to maintain some cultivation of older varieties of apple in Australia.
- That an association of existing and prospective cider producers be encouraged.
- That the Australian Apple and Pear Growers Association take an active role in the research and / or promotion of cider as a tool of diversification.
- That interested groups actively lobby for government support based on a four prong approach of tourism, economic viability of orchardists, agricultural diversity and rural development.
- That AFFA and Horticulture Australia investigate the opportunities that cider may present and take steps towards including opportunity for the industry in their funding schemes.
- That growth of the cider industry in Australia is accompanied by the use of Spanish terminology so that a language separating the product from other fermented beverages develops.

WAIVER

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Signed:  Dated: 13/01/2003