



Marcher Apple Network

APPLES & PEARS

Volume 2 No 11

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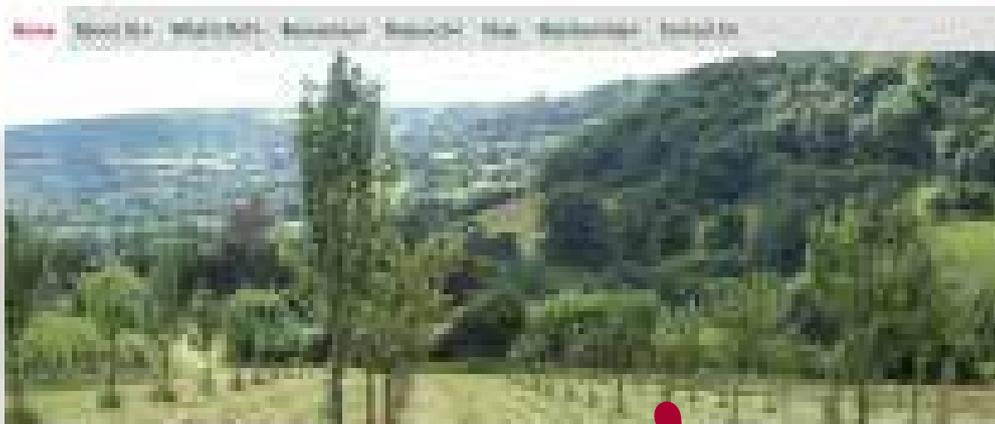
Autumn 2017



Marcher
Apple
Network



Information on our website
www.marcherapple.net



Marcher Apple Network

The Marcher Apple Network is a not-for-profit organisation that aims to promote and support the production and consumption of locally grown apples and pears in the Marcher counties of Herefordshire, Shropshire and Worcestershire.

We have a range of activities and events for all ages and interests, including a regular market stall at the Hereford Farmers' Market, a monthly newsletter and a website.

We are currently seeking members and are looking for new members to help us with our work.

We are also looking for new members to help us with our work.

We would be pleased to hear from you if you are interested in joining the network.



our new website!



Reviving the old varieties of apples and pears
in the Marcher counties

www.marcherapple.net

MAN's official business: Chairman's report

AGM

We have held our AGM at the Cider Museum in Hereford for many years. It's a convenient location but it is quite expensive. Your Committee has chosen to try elsewhere instead for containing costs. Our next AGM is therefore at the Village Hall in Pudleston., HR6 ORA (although if using SatNav better to use HR6 OQY) <http://pudlestonvillagehall.com/>. It will be held on **Saturday, 25th November** at 11:00. Members are cordially invited to attend.

The purpose of the AGM includes receiving and, if thought fit, accepting the annual report and accounts, and electing Trustees to the Board. Coffee will be available from 10:30. We are delighted that we will then have two guest speakers:

Karen Humphries of the Three Counties Orchard project will give us an update on this innovative lottery-funded project which works with owners on traditional orchards to maintain and restore them, as well as training volunteers in orchard skills; Rosemary Winnall of the Wyre Forestry Study Group will then talk to us about the study of orchards in the Wyre Forest. A few years ago, Rosemary led what is to this day the most detailed study ever undertaken of three specific orchards where every aspect, from the biodiversity to the social and cultural history, were meticulously researched.

There will be refreshments and a light lunch as well as a great chance to socialise with other apple and orchard folk. Check out our web site at www.marcherapple.net for further details and directions. We hope to see as many of you there as possible.

Directions to Pudleston Village Hall

From Leominster: take the A44 to Worcester/Bromyard; take the 3rd left after approx. 2¾ miles, signposted Hatfield 4/Pudleston 3. It is on a sharpish right-hand bend. Follow this all the way to Pudleston church which should be on your left; at the T junction there turn left (sign to Village Hall on wall ahead) and within about 20 yards turn right,

signposted Rosedale/Whyte/Leysters: see also small sign for Village Hall at ground level. The Village Hall is about 100 yards ahead on the left, set back from the road.

AGENDA

1. Apologies for Absence
2. Minutes of 22nd AGM
3. Matters Arising
4. Annual Report
5. Presentation and Adoption of Accounts
6. Other Reports
7. Election of Directors
8. Exemption from examination of Accounts 2017/18
9. Open Forum
10. Any Other Business

Current TRUSTEES:

Peter Austerfield
Mike Porter
Jim Chapman
Jackie Denman
Nick Dunn
Sir Andrew Large
Andy Pillow
Stephen Ainsleigh Rice

Three trustees, Peter Austerfield, Mike Porter and Stephen Ainsleigh Rice, are retiring: all three are willing to be re-elected. In addition, David Smith currently serves as Membership Secretary is nominated by the Board to be a Trustee. If any members wish to serve as Trustees, please do contact the Company Secretary.

Current MANAGEMENT COMMITTEE

(Officers):

Peter Austerfield (Chairman of Trustees)
Daniela Bergman (Events and Courses)
Wade Muggleton (Secretary)
Sheila Leitch (Librarian and Network Co-ordinator)
Andy Pillow (Treasurer)
Chris Porter (Archivist)
Mike Porter (Identifier)

Stephen Ainsleigh Rice (Chairman)
Charlie Searl (Website and Facebook)
David Smith (Vice Chairman and Membership Secretary)

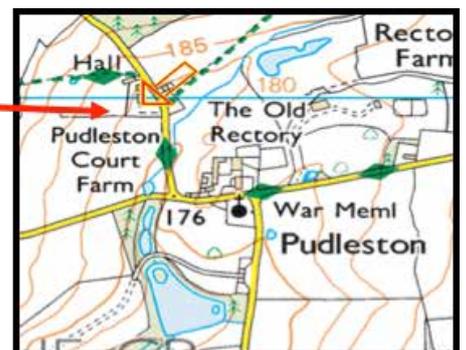
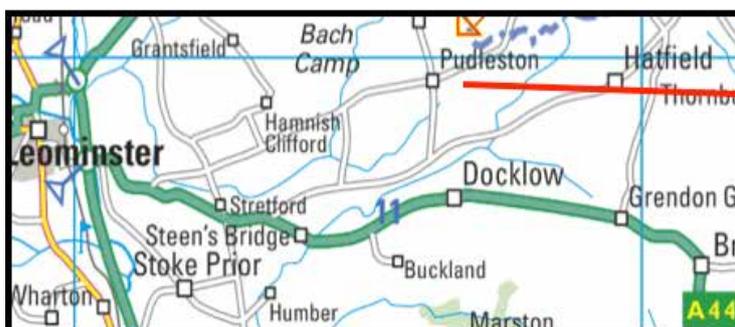
If you as Members would like to join the Committee as officers or supporters we'd be delighted to have your assistance. Do let any of the Trustees know of your interest; formally Trustees approve who serves on the Committee but they're minded to accept all good offers! We have 297 members as of July, 2017.

Forward Planning Meeting

On the 28th January we met at the Grange Court in Leominster to hold another Forward Planning Meeting. This year our objective was setting out a vision in terms of goals to achieve over the next five years. We ended up with four areas to which we must give attention, and in each a number of goals that we must progress, though we did not assign priorities — that is for another day. But we must remember that wise remark: "In preparing for battle I have always found that plans are useless, but planning is indispensable." – Dwight D. Eisenhower.

Identification

- Having 6 more identifiers trained, at least to some extent, to complement the existing 6 people who are able to identify apple varieties at least to some extent.
- Having all apples in MAN orchards identified
- Have more accessible ID workshops
- Continue to be present at shows
- Find some people who can identify cider apples
- Be able to use and add to/improve online resources such as FruitID.
- Have access to Jon Savidge's database and photographs of apple varieties
- Be involved with pears?



- Have produced a video of a straightforward ID process for basic training and to raise more public interest in identification
- Have banners or posters of common heritage varieties to display at shows
- Have analysed and completed the DNA identification of our varieties, using follow up methods of sequencing where DNA fingerprinting is not sufficient
- Can robustness of identification be defined?
- Link MAN identification with nationwide efforts to create single, curated directory,

Coordinators for identification are Ainsleigh Rice, Mike Porter, Peter Austerfield and Mary Brennan

Conservation

- Have five curated copies of known interesting varieties in secure orchards with long-term future prospects controlled by MAN or in partnership with MAN
- Have defined our accession policy based on heritage importance, so that decisions can be made as to the value of our apple varieties (by 1 September 2017!)
- Have a list of varieties to be planted in the secure orchards
- Have at least two copies of any unnamed or uncertain varieties within MAN orchards
- Have a directory of orchard collections eg PTES, MAN virtual database of private orchards
- Have defined interesting varieties of cider apples – grown or originating in Herefordshire
- Run a course in orchard maintenance for volunteers (possibly in association with another group?).

Coordinators for conservation are Wade Muggleton, Daniela Bergman, Tom Adams, Russell Sutcliffe, Tony Malpas (cider), and Jane Cullen

Marketing of MAN

- Education – promote MAN and heritage apple varieties in schools
- Liaise with other groups/organisations across the country eg ON, NFC
- Avoid duplication with other groups, swap scions (so local varieties are in local areas)
- Have local and national contacts
- Produce press releases and have leaflets at nurseries selling apple trees
- Have nurseries advertise MAN via labels and where possible inform MAN of tree locations
- Have a presence on social media e.g. Facebook, UTube with links to/from Man website

- Make sure the website is useful and up and running
- Ensure MAN's financial viability
- Find resources – people & money
- Get the public to sponsor a tree?
- Define scope of non-ID shows e.g. food shows – Ludlow etc., agricultural shows
- Be involved in Hereford City of Culture 2021

Coordinators for Marketing/Promoting MAN are Charlie Searle, Alison Denton, Tom Adams and Tish Dockerty

Structured Communication

- Get our information on MAN varieties out to the public
- Work to encourage John Savidge permit his database be accessible with permissions into the public domain. Link with NFC db, FruitID db (Peter Laws of East of England)
- Curation by DNA is specific to ONE tree and its progeny (note sports); ensure those are protected.
- Communicate with MAN members more frequently e.g. consider quarterly updates

Coordinators for this area are Ainsleigh Rice and Mike Porter

DNA Fingerprint studies

You can read Mike Porter's wonderful report analysing results of the 2016 campaign of DNA fingerprinting in which 168 samples were analysed at East Malling Research. In summary 98 samples matched those that had been obtained by NFC and a further 10 by other groups, and another 60 were found to be unique.

Fingerprinting has raised many fascinating puzzles about ID, and they'll make the ID workshops even more interesting. Do come and join us if you can!

We're so pleased with the results and new insights that we've submitted another 176 apple samples for DNA fingerprint analysis in 2017.

Website

By the time that you receive this Newsletter, we anticipate that the new website will be available for you to read. The address hasn't change, it's still at <http://www.marcherapple.net/>. The development has been funded with £1500 from the Heritage Lottery Fund, via the Three Counties Traditional Orchard Project. Mid Wales Design have built it so that MAN members, Charlie Searl and Wade Muggleton, can maintain content. It will be

much easier than before because the modern CMS technology is more flexible than that which was available to Richard Wheeler when he built what was a pioneering product in the noughties.

Your Committee requests that Members look through it and give us your thoughts There will be typos and mistakes, so please let us know by sending comments by e-mail, preferably to secretary@marcherapple.net. Is it clear, what more would you like to see included, have you got stories and information you'd like to offer etc.? It is your website for your benefit and for attracting the public's interest in aid of fulfilling our Charitable Object.

In this new site you'll find much of the old too: who we are, the Newsletters and News Sheets, books of interest, the library, information on courses and events. There is also information on other orchard groups and nurseries. We'll be adding more as we have the time, for instance the original GLASU leaflets. A very handy new feature is an index of many of the articles published in Newsletters.

We have also taken the opportunity to improve access for members and the public to join MAN, buy our publications, complete forms for submission of apples for identification, join courses and events, and make monetary donations. Payment may now be made by credit card and Paypal.

Previously we had nine e-mail contacts. This has caused confusion in the past. We will now just have two: **David Smith** as Membership Secretary and **Wade Muggleton** as Secretary. They will engage whomever they think on the Committee or elsewhere is best placed to assist with any enquiries.

Finally, this is the correct place to say a big Thank You to Richard Wheeler for having maintained our website over many years. It has been a trusty window onto our world. We know that Richard is rather glad that his site is being superseded and that he can now rest in much more peace. But again Thank You, Richard.

Charlie Searl
charlies@thegreenvalleys.org

News of MAN orchards

Tredomen

Rows Y and Z were pruned heavily this winter as some of these trees had grown to overshadow the bungalows nearby. A sapling *Tyler's Kernel* was planted as replacement for the current one which is heavily infested with canker and would be better removed. Stumps were ground out of two removed trees (*Callow 36* and *Crimson Bramley's Seedling*) as a test for what is involved.

Paramor

On February 25th members of Cwmdru Support Group and Green Valley volunteers helped to plant another 32 young apple trees. (see list below)

New creosoted tree stakes had been knocked in the previous day and we were aided by a local farmer with a small tractor and mechanised auger which excavated the planting holes. Wire guards had been cut beforehand by the Cusop Brigade. Thus accelerated, planting was completed in less than 3 hours, even allowing for breaks to allow Charlie to pose for 'action shots' by the B & R photographer. As

drizzle intensified workers retired for a light lunch at the cafe. Many thanks to all who helped and to Charlie for organising the publicity.

At this time we had an incursion of a small flock of sheep. Two months later a ewe and lamb had returned and nibbled some of the new plantings, but how did they enter the field as it has stockproof fencing all around?

Croft Pendarren

The bluebells gave a wonderful display in May, but poor weather at apple blossom time and frosts are likely to account for a light crop of fruit on many trees this year. An impressive lesser stag beetle (*Dorcus parallipipedus*) was seen on a sunny evening on 3rd June; the species is probably breeding in the dead wood of

old stag-headed oaks along the top of the river bank.

The orchard now has a new guardian in the form of a wooden sculpture, following the classical tradition loosely based on an image of the Roman god Priapus, as related by PA in Newsletter 12 (2006). At 15 feet in height, this custodian does not wield a sickle as a deterrent, but relies on sheer size to ward off scumpers.

Donnington

The Management Committee plans ceasing maintenance of this orchard as part of our orchard rationalization plan. Apple varieties of greatest interest have been grafted up and (will be) planted at Paramor. No sampling at Donnington for DNA fingerprinting was considered necessary either last year or this.

Westhope

This small orchard of standard trees, now over 20 years old, has some fine trees and some with problems. Mole and rabbit activity together with a tendency to grow away from surrounding (non-fruit) trees has caused some to lean over requiring staking and rope support. So far, they have settled down at a constant angle. In the early days I used to mow the grass with my ride-on mower but

this is now impossible due to the activity mentioned above. So, it's hand strimming which takes quite a few hours. Fortunately I have a young assistant who does the lion's share of the work.

Cropping this year is varied. Good crops are seen on *Duke of Devonshire*, *Pomeroy of Hereford*, *Winter Quoining*, *Newland Sack* (several years younger than the others), *Domino* and *Severn Bank*. Others are fair to poor. *Lady's Finger of Hereford* is still hanging on in spite of having a split trunk.

Peter Austerfield



M25 in main Orchard	MM106 in main orchard	MM106 in nursery
Pig Aderyn	Nuneaton Codlin	Norton Burrows
TA65	Willaims 1	Grantsfield A-E
Hellens 1	Rockfield 1	Calville Blanc d'Hiver
Rockfield 1	Much Cowarne	Cornish 1
Haughty's Red	Lewis-Cooper G	Worcster Silk
Queen Alexandra	Cadwallader	Norton Step
Martin Nonpareil	Ty Du 1	Grantsfield Blenheim
Wormsley Pippin	Striped Beefing	Twenty Ounce
Lingens 1	Hellens 1	
	Cullum Pearmain	
	TA 66	
	Roxbury Russet	
	Lady Sudeley	
	Martin Nonpareil	

Orchard Gleanings

New Names in MAN orchards

In June 2016, as part of a scheme organised by Peter Laws [fruitID] and Matthew Ordidge [Curator of the National Fruit Collections at Brogdale] to help in the identification of local fruit varieties, leaf samples from 169 of the apple trees in our orchards were sent to East Malling for DNA fingerprinting. In total, 606 apple trees from various parts of Britain were examined. Our selection was made with the following aims in mind:

- To confirm the identity of named varieties in our orchards
- To name those we had failed to identify by traditional methods
- To provide DNA fingerprints of those cultivars we had identified as old named varieties not represented in national collections
- To discover the degree of differentiation between clones that was achievable using current technology

A synopsis of our results was noted in MAN News Sheet 16 (Spring 2017) but some further comments are included here

CATEGORY A Database Matches

98 (58%) of our samples had DNA fingerprints which matched varieties in the National Fruit Collections at Brogdale (NFC) though 10 of these have names which are under review.

50 of these (see Table 1) were expected results, while 38 were unexpected (Table 2)

At present the DNA technology will not differentiate closely allied varieties such as the various forms of “Quoining” or “Underleaf.”

New Names

Castle Major

Unofficially named Downway Costard, having been propagated from scions

Table 1 Database Matches (Expected results)

<i>MAN Name</i>	<i>DNA Name</i>	<i>MAN Name</i>	<i>DNA Name</i>
Ardern G	Guelph Gloucester	Hunt's Duke of	Puckrupp Pippin*
Scarlet Crofton	Scarlet Crofton	Lodgemore Nonpareil	Lodgemore Nonpareil
Ballard B8	Queen Caroline	Maltster	Maltster
Ballard C6	King Coffee	Nant Gwrtherin	Ross Nonpareil
Bardsey	Bardsey	Newland Sack	Newland Sack
Blacksmith	Withington Fillbasket	Onibury Pippin	Onibury Pippin
Brilley Codlin	Lord Grosvenor	Phillips' Codlin	Lord Suffield
Chatley Kernel	Chatley's Kernel	Pig yr Glomen	Warner's King
Cissy	Cissy Nonpareil	Pitmaston Russet Nonpareil	Pitmaston Russet
Colwall Quoining	Colwall Quoining	Pomeroy of Herefordshire	Pineapple Russet of Devon*
Cui Parc O2	Surecrop	Powis Castle 17066	Sandringham
Cummy Norman	Cummy Norman	Prospect 1	Broxwood Foxwhelp
Devonshire Red	Tom Putt	Raglan Underleaf	Underleaf
Downton Pippin	Downton Pippin	Sam's Crab	Sam's Crab
Gennet Moyle	Gennet Moyle	Scarlet Costard	Pope's Scarlet Costard
Glanheddwch	King of Tompkins C.	Severn Bank	Severn Bank
Gloria Mundi	Gloria Mundi	Sugar Loaf Pippin	Sugar Loaf Pippin
Hargreave's Green-sweet	Hargreave's Green-sweet	Ten Commandments	Ten Commandments
Hindmarsh 1	Old Pearmain(Kelsey)	Tillington Court	Tillington Court
Hope Cottage Seedling	Hope Cottage Seedling	TA 33	Warner's King
JB 4	King of Tompkins C.	TA 36	Bismarck
John Norman	King Coffee	Twll tin gwydd	Lord Grosvenor
King's Acre Bountiful	King's Acre Bountiful	Ty Du 1	Loddington
King's Acre Pippin	King's Acre Pippin	Tyler's Kernel	Tyler's Kernel
Landore	Underleaf	Lynwood Brecon	Lord Lambourne

Unofficial names shown in italics.

**Discussion of name with NFC is in progress.*

Table 2 Database Matches (Unexpected results)

<i>MAN Name</i>	<i>DNA Match</i>	<i>MAN Name</i>	<i>DNA Match</i>
Aberporth Quoining	Crimson Queening	McIntosh Red	Winter Quarrenden
Aeron Quoining	Crimson Queening	New German	Lady's Delight
Butter Apple	Woodford	Norfolk Belle Bonne	Alfriston
Captain Tom	Castle Major	Penmaes 11	Notorisappel
Chatley Red Pippin	Chatley's Kernel	Penmaes Hollowcore	Dubbele Bellefleur
Checkley Rymer	Crimson King	Peterchurch Quoining	Crimson Queening
Coston FT	Burgess Seedling	Priory Belle	Sandringham
Coston Quoining	Huntingdon Codlin	Priory Codlin	Royal Jubilee
Coston Russet	Burgess Seedling	Sandlin Duchess	Grange's Pearmain
Credenhill Pippin	Barnack Beauty/Sport	Sandlin Duchess(Sharp)	Grange's Pearmain
False Dr Hares	Jonathan/Sport	Stoodley 1	Blenheim/Sport
Gillflower of Gloucs.	Cornish Gillflower	TA 10	Dubbele Zoete Aagt
Greenfields 1	Hambling's Seedling	TA 29	Brabant Bellefleur
Gwernllwyd	Red Victoria	The Warrior	Hodge's Seedling
JB 11	Kentish Fillbasket	Tir Chanter1	Ponsford
Lady's Finger of Lancs.	MM106 rootstock	Whitehead's Quoining	Crimson Queening
Leathercoat (Jun)	Leathercoat Russet	Wilkins Red Dessert	Fortune/Sport
Leathercoat Russet	Belle de Boskoop/Sport	Worcester Silk	Calville Rouge d'Automne
Lillans O714	Golden Noble	Yorkshire Beauty	New Hawthornden

The "New names" which have been revealed by the DNA analysis are shown in red and there is further information about some of these below.

in West Wales. A few years later a tall tree of the same variety was noted in a garden hedge at Titley. About this time *Trees for Life* (Frank P. Matthews) included the variety in their catalogue as Captain Tom, which they had propagated from trees in an orchard at Colwall. It is a handsome tree and we have been trying to identify it for more than twenty years, so having it named as Castle Major was a welcome surprise. Castle Major was described by Robert Hogg in the 4th edition of *The Fruit Manual* (1875). He wrote (1884) that it is an excellent cooking apple which is "a favourite among the Kentish Orchardists and is frequently met with in the London Markets".



Castle Major in blossom.....and in fruit.



Could this be the legendary 'Drovers' Apple' brought from London to West Wales by homecoming drovers? (See Newsletter 4).

Burgess Seedling

Leaves from two trees in the Gypsy King orchard in Shropshire were identified from their DNA as Burgess Seedling, a late-keeping, medium-sized, angular, russeted cooker, first recorded in 1872 and at Brogdale indistinguishable from Webb's

Kitchen Russet. Neither of the names are mentioned in Hogg's Fruit Manual, but Burgess Seedling, from East Malling, was exhibited at the RHS Fruit Conference at the Crystal Palace in 1934.

Crimson King

This is the new name for a variety collected from farm orchards at Glasbury (Powys) and Checkley (Herefordshire) about 1993. When we mounted our exhibition of 'unknown' apples at the Malvern Fruit Show in 1995 this was almost the only entry to elicit a name from visitors-Rymer-but as we considered this was not the true Rymer, the unknown apple was given the nickname Checkley Rymer. Crimson King is a triploid dessert apple from Devon and Somerset, but the same name is given to a medium-sharp cider apple from the same area. As might be expected there has been confusion.

Hodge's Seedling



Since 1998 three trees called Warrior, reputed to be an old Dorset variety, have been growing in Tredomen Orchard. They were raised from scions from three different individuals, sent from Sturminster Newton in Dorset by Mrs Gwyn Rogers. At the time local researchers suspected that these were different sorts of Warriors. Last year the DNA from one of the Tredomen Warriors was found to match that of a variety in the National Fruit Collections (NFC) called Hodge's Seedling. Hogg (1884) has a description of Hodge's Seedling, having received the variety from a correspondent in Cornwall. The description matches pretty well, although Warrior seems a more appropriate name for this tall, lop-sided, boldly-striped cooker.

Dutch Varieties

It was a further surprise to find that four unknown trees, found in local farm orchards believed to have been planted in the 1920s, matched Dutch varieties.

- Penmaes 11 from Bronllys matched a variety raised by a Dutch notary in the 19th century and known as Notorisappel.
- Tir Allen 29 from Llanwrda matched Brabant Bellefleur, a 17th century late-keeping cooker described both by Hogg and Bunyard.
- Penmaes Hollowcore, identified with Dubbele Belle Fleur.
- Tir Allen 10, identified as Dubbele Zoete Aagt.

According to Joan Morgan the last two were used as interstocks to overcome problems in grafting varieties such as Cox's Orange Pippin. Ainsleigh hopes to discover more about this when next he visits Holland.

Controversial Results

Another couple of surprise results related to varieties grown from scions which had come directly from National Fruit Collections: New German was identified as Lady's Delight and Sandlin Duchess as Grange's Pearmain. There are other instances, such as Hunt's Duke of Gloucester and Puckrupp Pippin, where the names of varieties in the NFC do not closely match historical descriptions. There are various possible reasons for such discrepancies and we will be discussing these results with the Curator.

Other unexpected results will require further research by the ID group. Is Credenhill Pippin a sport of Barnack Beauty? Is Greenfields 1 from Three Cocks actually Hambling's Pippin? Naming of some of the Russets seems confused. There's a busy autumn ahead!

CATEGORY B Duplicates

10 (6%) of our 2016 samples matched those submitted by other Apple Groups but not in the NFC database. If these were

given the same name, as was the case with Welsh Druid and Marged Nicolas, we can proceed with accreditation, but in the 8 cases where different names were given there will need to be discussions with the relevant Group to establish acceptable names. (See Table 3



*Old tree of Gypsy King
.....and blossom*

CATEGORY C Unique DNA Fingerprints

60 (35%) of our 2016 samples did not match apples in the NFC database or samples sent by other groups. At least 16 of these match descriptions of old varieties which are not represented in the NFC or elsewhere. Some, such as Bridstow Wasp, Bringewood Pippin, Pig-yr wydd and Sweeney Nonpareil have been described and illustrated in the Welsh Marches Pomona; others like Barcelona Pearmain, Black Gilliflower, Gypsy King and Wormsley Pippin have featured in past issues of Apples and Pears and we have compiled dossiers consisting of descriptions, photographs of blossoms and fruit, historical background, etc., for the first batch of 20 in preparation for the accreditation of their DNA fingerprints. Research will continue into the remaining 40 cultivars which range from well-known varieties like Welsh Pitcher, widespread in South Wales, to those,



<i>Accession Name</i>	<i>Reason for delay</i>
Gabalva	Under review at NFC
Gelli Aur	Matches differently named duplicate from another Apple Group
Hellens Kernel	Duplicate from another Apple Group
Hollingworth Cooker	Duplicate from another Apple Group
Kemerton NG	Technical failure
Llanerchaeron Peach	Duplicate from another Orchard Group
Llangenny Evagil	Duplicate in observation plot at NFC
Ludlow Longnor	Comparator de- named by NFC
Masshder	Duplicates from another Orchard Group
Puckrupp Pippin	Review requested at NFC
Round Winter Nonesuch	Under review at NFC
Syke House Russet	Comparator de-named by NFC
Trevithel Large Russer	Under review at NFC
WAS B	Under review at NFC
White Paradise	Under consideration by NFC



Barcelone Pearmain

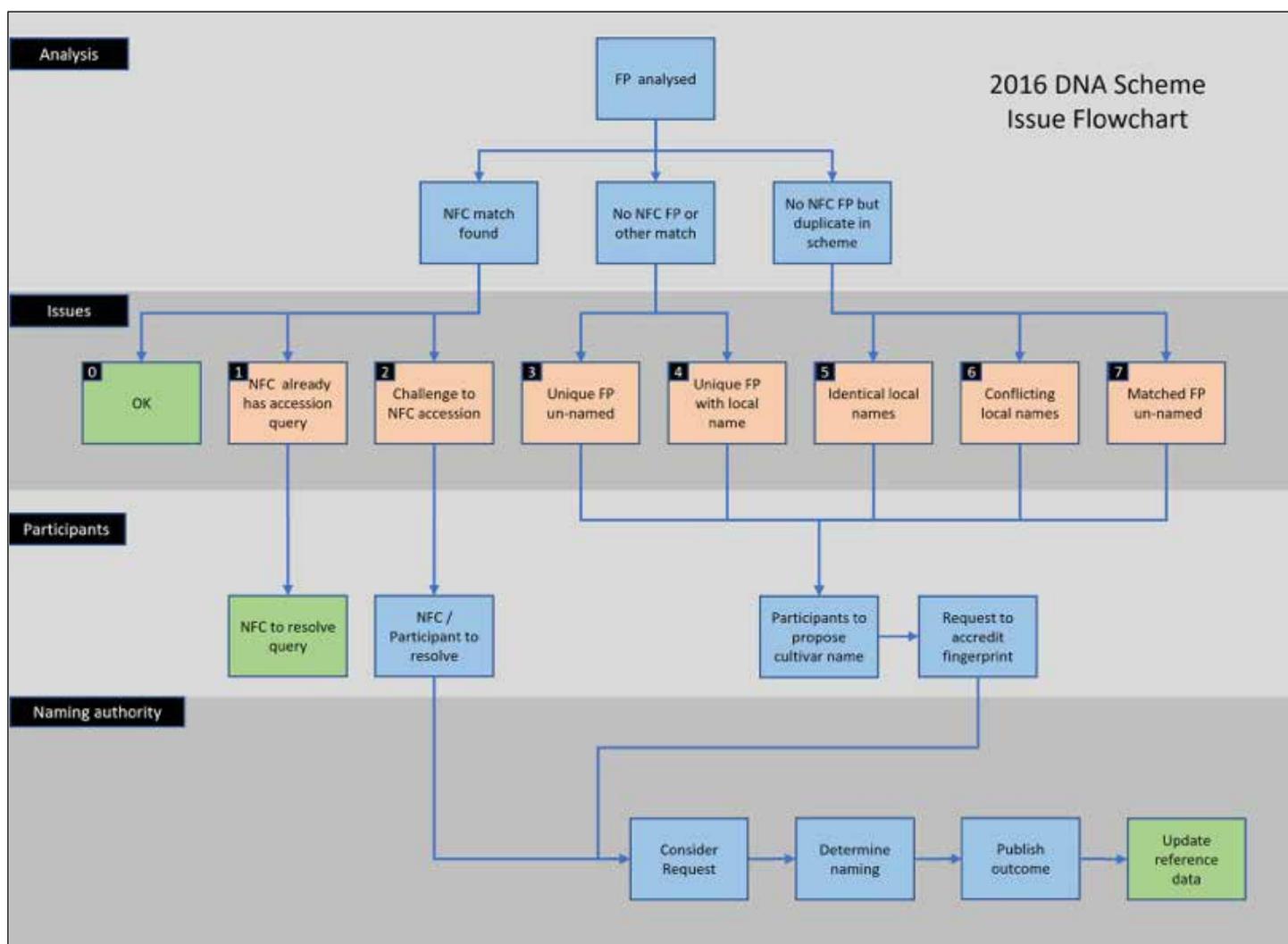


Photos : John Savidge

*Gabalva sapling in blossom
and fruit*



Bringewood Pippin in blossom



such as Ty Du 2, which may be chance seedlings planted to fill gaps in a farm orchard. All need careful evaluation before any decision is made about proceeding with their accreditation. The Welsh varieties are particularly problematical because there is generally little historical information available about them.

All 169 results were considered by the MAN identification group at a special meeting on March 2nd. Our comments were returned to the organisers of the scheme in time for consideration at a meeting in Peterborough of the Orchard Network (March 21st) at which Peter Laws presented a thoughtful discussion paper setting out a pathway for achieving agreement among orchard groups over the naming of local varieties. With his permission a summary diagram of his proposal is included above.

Unique DNA fingerprints will be named by the Orchard Group concerned. If duplicate names for a cultivar with a particular DNA

fingerprint exist, agreement between orchard groups on a preferred name will be needed.

Names will be entered on a national database/DNA fingerprint register, together with a full description including photographs and historical background. The DNA fingerprint register would be kept up to date by FruitID and visible on line.

Local Orchard Groups will maintain collections of trees of local cultivars in their museum orchards and details of these reference trees would also be recorded in the register. In this way a Register of Local Fruit Cultivar Fingerprints could be established. Some members may remember that in 2007 a similar Local Apple Register was proposed by Simon Clark and The National Orchard Forum.

Taking part in the 2016 DNA fingerprinting scheme has been tremendously helpful in many ways:

- Confirmation of names of several of the local varieties
- Identification of some that had puzzled us for a long time
- Provision of DNA fingerprints for the varieties in our orchards
- Pinpointing those varieties with a unique DNA fingerprint
- Helping to show the limits of present techniques in the differentiation of related cultivars

The work done by the organisers in helping to resolve differences between Apple Groups over synonyms and find mutually acceptable names leading to the establishment of a Register of Local Cultivar Fingerprints will have a very beneficial influence on the conservation of local biodiversity. Elated by such thoughts we sent another 176 samples for DNA fingerprinting in June 2017.

Identification workshops



In the last News Sheet we reported upon results from Identification workshops, so we won't repeat here, though we thought you would like to see the assiduous and studious atmosphere under which we work at the Harp Inn in Glasbury, well, at least until the cider flows at lunch time.

The Apples & Orchards of Worcestershire

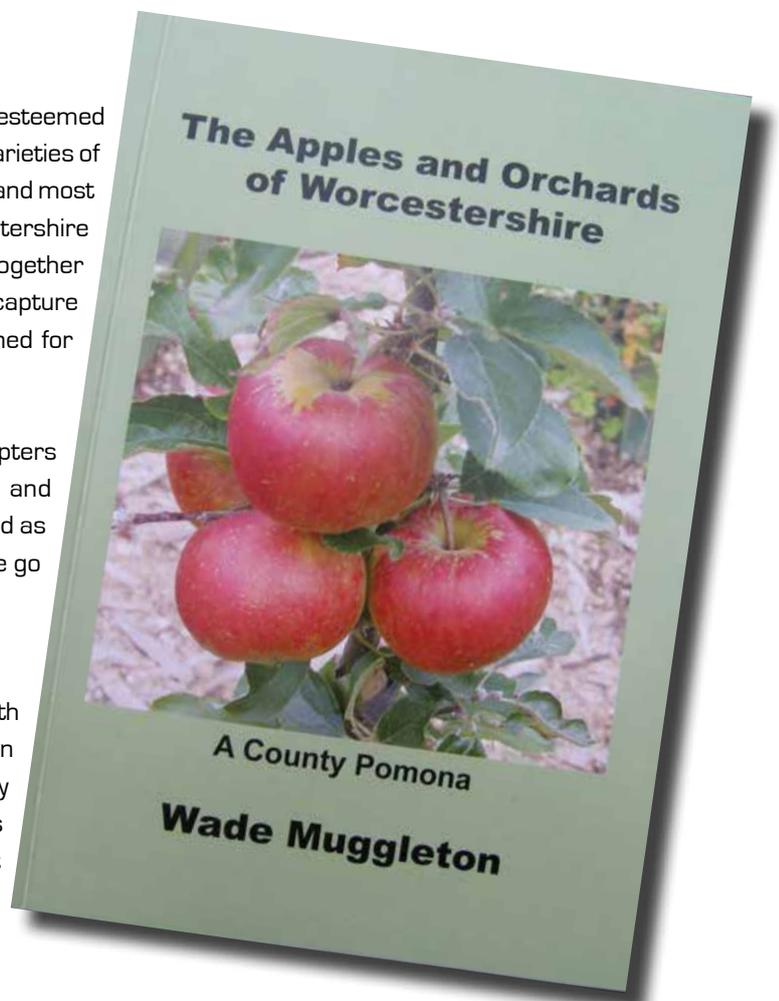
Wade Muggleton

The concept of a Pomona had its heyday in the 1800's when the esteemed men & women of august societies recorded & catalogued the varieties of the day. The Herefordshire Pomona being perhaps the greatest and most famous example. There has seemingly never been a Worcestershire Pomona where all the varieties of the county were recorded together in one place. This book is an attempt to rectify this as well to capture a few of the stories of the apples of a county once so renowned for its orchards.

With 32 varieties described and photographed, as well as chapters on lost varieties, heritage varieties, Pears, Orchard stories and aftercare the book will be available at all events that MAN attend as well at www.marcherapple.net/shop all proceeds from the sale go to Marcher Apple Network

About the Author

Despite the title . Wade actually lives just across the border in South Shropshire where he grows over 100 varieties of apple in his own collection. he works as a countryside officer for a local authority and has previously lectured in countryside management. He has written extensively for a range of magazines and tutors short courses on various aspects of orcharding and fruit growing. He lives in a quiet village with his partner, two children and various animals, trees, bees and grows lots of fruit & veg.



Apple Detective Work in the Teme Valley

Last Autumn MAN member David Spilsbury (85) of Eastham Worcestershire presented me with the following wonderful piece of pomological detective work

According to Brogdale Records, both Dewdulip Seedling and Haughty's Red were sent to the national collection from Tenbury Wells in 1946. (David and I have often discussed these two varieties at length) However despite two trees of each being in the collection at Brogdale we had never managed to find either variety in their area of origin (West Worcestershire and the Teme Valley).

With his lifetime of local knowledge and contacts David did some investigating and in his words "some years ago I was told by Joyce Tetsell who used to live at Hopslade, Eastham that her father in law, Tom Tetsell, who farmed at the Flatts in Eastham, had said that the Rev E.E.Lea (vicar to Eastham Parish) had sent some graft wood to Brogdale from an apple tree at the Flatts, which she believed was the Dewdulip, in fact she gave me a card with the name on, in Rev Lea's writing, but I have mislaid it and hope one day to find it". So we had wondered did the Haughty's Red go at the same time from the same source i.e. the Rev Lea?

We know Fred Haughty was a game keeper and small holder on the Kyrewood estate near Tenbury wells, the estate was owned by Col Wheeler who lived at Brook Farm, Kyrewood. We also know that the Rev Lea was a shooting man and had a gun in the Newham and Kyrewood Shoot. So could it be

he obtained and sent the Haughty's red graft wood at the same time?

Again in David's Words "In the last year or two David Powell has taken me to visit Brook Farm, as he has the grass keep there and I have met Ruth who now lives there, she tells us that there used to be a particularly good red apple tree growing down near the Kyre Brook, which sadly died and fell down many years ago. She also has a very old apple tree, opposite her back door, it had been a huge tree in its prime, but a few years ago the whole top had broken off, just leaving the trunk from which a new top has now grown".

"Last year when we visited David Powell and I agreed that the apples on it were Sam's Crabb, we estimate it is 100 to 150 years old, it has a big hollow trunk large enough for a barn owl to nest in. This year David asked me to go again and see the tree as it had a lot of good reddish apples on it which when I tasted them were somewhat like a Lord Lambourne in flavour. Ruth said that over the years she had sometimes found the apples delicious and other times not. On close inspection through the re growth we found that there were two varieties, one being Sam's Crabb and the other the good red eater.

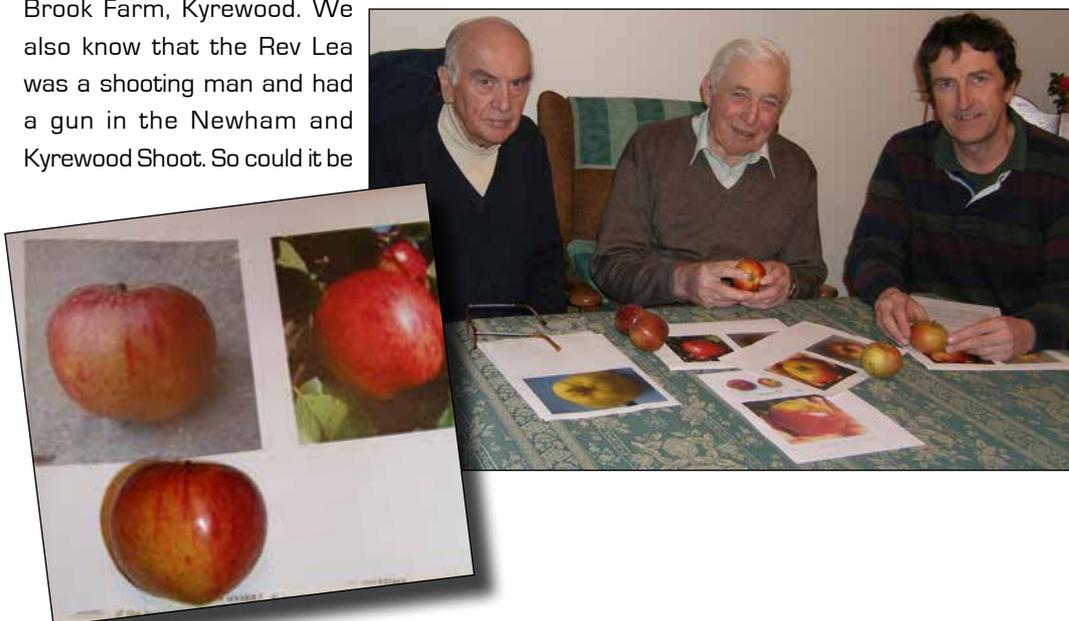
Ruth also said she had asked someone to start her another tree from a graft, but she will not know which variety she has got until it fruits. There is an old rusted much spreader near the tree and so not knowing the variety she had named it Old Muck spreader". Does she have the Sam's crab or her unknown tasty apple and could this be the Haughty's red? Only time will tell.

David had secured some specimens of the possible Haughty's red which he gave to me, last year I arranged for a friend who lives in Faversham to go to Brogdale on my behalf and photograph several varieties, one being Haughty's Red and as far as is ever possible from photographs (of which I have a dozen of that particular variety, plus Brogdale's own) I would say it is Haughty's Red. So whilst we had to go to Brogdale for the bud wood for the trees Walcot Nursery have grown for the Three Counties Orchard project, it seems David may have found an original still hanging on in its place of origin.

The element of over grafting is interesting and was apparently common in the Teme Valley, and several of the trees in David Spilsbury's own orchard have trunks that are not the variety on top, he tells of two grafters who worked extensively in the valley in the 40's and 50's, changing or adding varieties onto already established trees.

This story shows the value great research and local knowledge and the importance of capturing information from the generation who lived it. Leaves from the tree have gone in with the latest samples for DNA analysis, we await the results.

Wade Muggleton



Treating apple trees with garlic and seaweed extract

Henry May decided last year to sell his amazing collection of cider apple trees at Tidnor Woods. This project had been one of his real joys and we were very sorry to lose his enthusiasm from the Herefordshire scene. He had encouraged ecologically friendly management in his orchards, including treatment of trees with a garlic extract for suppressing pests.

Henry had 40 litres of the product, marketed originally as 'Aston Tree Wash', surplus and kindly gave it to MAN for our use. The Aston company has since been bought out but the product is still sold [<http://uk.solufeed.com/media/46262/tree-wash-tds.pdf>]. It requires regular applications over 10–14 days over a period of several months. Your committee realised that we could not use it as spraying our semi-dwarf and young standard trees would have required a tractor or equivalent. Yet we felt Members would likely be very interested to know if it was a useful product. We knew Tom Adams treats his dwarf/cordon trees with garlic oil, so we invited him to accept Henry's generous gift, continue with his procedure and report to Members via *Apples and Pears*. Here's what he had to tell:

"I have used 'Solufeed Tree Wash' garlic oil for one whole growing season. I mix this with Chase Organics SM3 seaweed extract and the results are very encouraging. I have a small orchard of 40 trees (which will double in number this coming winter) grown as espaliers, cordons and as centre leader bushes, mostly on MM111 rootstock with an M9 interstem. The reason behind this choice is to give me a strong root system that is happy in the wet soil, can compete well with competition in the root zone yet allows me to plant lots of small trees in the limited space I have. The range of varieties can be seen at <http://tomtheappleman.co.uk/wp-content/uploads/2015/10/Nursery-Stocklist-2016-17.pdf>. The trees are five years old and grow at an altitude of 160m. It's not a proper scientific experiment because pest incidence differs from year to year, every growing season is different and I had no control trees, neither untreated nor sprayed against pests using conventional chemicals. The most abundant pests I encounter are aphids; I did not observe for other insect pests, bacteria or fungi.

I sprayed as recommended, twice during the dormant season and fortnightly during the

growing season with 50 ml of garlic and 10 ml of seaweed per 5 l of water, using a knapsack sprayer. Both the top and undersides of leaves were sprayed.



Overall, it took me around two hours to spray the 1,000 nursery trees and 40 orchard trees.

What I noticed was very little aphid incidence and good healthy growth all round, both in the nursery and in the orchard. There was a good sheen to the leaves. It could have been that last year wasn't a good year for aphids but I also noticed that aphids were prolific in between the nursery rows where we grow clovers and birds foot trefoil as a green manure/mulch. Also, for the last two years I have installed around 20 overwintering shelters for ladybirds and lacewings, in the form of up turned milk bottles filled with corrugated cardboard, and planted a wide range of predator attracting plants, such as lavender, chives, yarrow, ox eye daisy, wild carrot, marjoram, birds foot trefoil, clovers and chicory. Blue tits are also prevalent and nest on site in the nesting boxes. They like to munch on an aphid or two.

The manufacturers of the garlic oil say it encourages resistance to fungal diseases and insect pests, is harmless to bees and there is no need for a harvest interval after spraying. I ate some apples twenty minutes after spraying; there was no garlic taste whatsoever. Garlic has high levels of allicin, which has antibacterial and anti-fungal properties. It has more than 30 sulphur-based nutrients and selenium that will stimulate growth.

The manufacturers of the seaweed extract claim: 'When used in a programme of

treatments from early in the season, it helps resist the adverse effects of stress due to drought. It will give cleaner trees with greater resistance to sap-sucking pests, producing clean fruit with longer storage life.

The extract contains macro-nutrients, trace elements and plant growth stimulants which encourage cell division, protein synthesis and chlorophyll production. These natural stimulants are especially useful when the tree is under stress. Regular applications of the extract enable the tree to maximise its photosynthetic capacity and make full use of available sunlight, water and nutrients. SM3 has shown to be complementary to biological control practices, its use being in line with the thinking of environmentalists and consumers. Crop effects after using SM3 include: Improved rooting, improved fruit set and fruit bud formation, limited frost protection and improved colour and skin texture, heavier yields of uniform fruit, better keeping qualities and improved resistance to attacks of fungi and insects.'

After having used the spray for 18 months, I am very pleased with the results. Spraying adds more time to an already labour intensive growing system but seems to be worth the extra effort. The most obvious observation to its success is seeing a high incidence of aphids on the unsprayed wildflower strips grown in between the nursery trees but very few on the trees themselves. It does not appear to have any effect on pear slug sawfly, which was prevalent on the pear trees."

Bulmer Foundation trial

A trial by the Bulmer Foundation was published in 2012. Though there were several difficulties with the comparative trial, it did appear that the Tree Wash boosted natural defences of the trees though it struggled to maintain the same level of health as from "conventional chemical" pest treatments. Findings are available at: <http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0OahUKEwi2ldOjv6fUAhUiBcAKHeDIA3wQFggsMAE&url=http%3A%2F%2Fwww.bulmerfoundation.org.uk%2Fdownload%2Ffindings-tree-wash-final&usq=AFQjCNGAmisgypofYOC7z4zi8KtwnaZ0ww>.

Overall, Tom's results are broadly consistent with those of the Bulmer's Foundation.

Would the real Black Worcester Pear please step forward

The Worcester Black Pear mystery as reported in last year's A & P has developed further as a result of DNA analysis which has shed some light on what is possibly the most ancient pear variety still in cultivation.

Historical anecdote suggests that what we know here in Worcestershire as the Black Worcester or Worcester Black, (people are equally divided as to which way around the name goes) was originally brought to the city by Monks from Warden Abbey in Bedfordshire, where the pear (or at least a pear) appears in monastic reference as far back as the 13th century.

Warden or Wordon pears have today, come to mean a group of large hard pears that never ripen fully and so are only any good as culinary or cooking fruit. Today the generic term Warden Pear includes a range of these large culinary pears including varieties such as Catillac, Uvedale St Germain, Bellissime de Hiver and the Black Worcester, whilst all completely distinct varieties it is the large hard cooking quality that they all have in common.

The Romans supposedly introduced a pear of this type known as the Iron Pear, perhaps named after the hard characteristic and some have gone on to suggest that the Worcester black is indeed the original iron pear. Were this to be the case it would make it the longest variety in cultivation suggesting an unbroken lineage of 2000 odd years. We will probably never be able to prove or disprove this theory unless some pear pips were ever found in Roman archeology and that some future as yet to be discovered technique were able to DNA test them against the profile of living varieties. Science fiction aside what we are able to compare is the various "Warden" type pears still in cultivation.

It was as a result of community interest in the village of Warden in Beds and the involvement of the nearby Shuttleworth College, that horticultural lecturer Paul Labous was granted a small Heritage Lottery grant to investigate the story of the Warden pear via DNA analysis. He collected samples from 9 different pear trees in Bedfordshire believed to be, or labelled in collections as Warden Pears or Black Worcester pears. In addition I submitted specimens from the 3 types described in my previous article where I referred to the Worcester Woods type, the Cripplegate type and the Martley type, named simply by the place the said tree is growing.

Initial (pre DNA testing) theory on my part; was that the Cripplegate and Martley trees were the same but that they appeared to be distinctly different from the Worcester Woods type, throwing up the scenario that there were two pretenders to the crown of claiming to be the Black Worcester, something I am not aware that anyone else had ever noticed until Paul Labous and I went collecting various samples and looked at them in detail. So 12 samples were sent in for DNA analysis and the results are shown in the table opposite.

Conclusions and Controversy?

Five of the samples from Bedfordshire (1WT, 5WSM, 6WHO, 9WD and 10 BWD) all have the same DNA profile as the Worcester



The Worcester Woods type is Black Pear as per Brogdale's DNA

Woods type (4UW); this is set against the DNA of the National Fruit collection and what they have as being Black Worcester. The Martley & Cripplegate specimens were proved to be the same as each other but were not Black Worcester. Of the 4 remaining Bedfordshire samples one (11WA) was Catillac whilst the other 3 were not Black Worcester nor the same as each other.

From the Worcestershire perspective there are two interesting aspects to these results. Firstly, it does suggest that the historical anecdote about the Warden Pear of Bedfordshire and Black Worcester being the same could be true. But which way it travelled and which county had it first will probably long be a rivalry and one that will likely never be resolved. Secondly, if they are not Black Worcester, what are the Martley & Cripplegate specimens? The tree in Cripplegate Park with its plaque and planting date of 1932, planted by no less than the future King, makes the boldest and perhaps most famous claim to being "Worcester Black Pear". Yet the science says otherwise: they do not match any other variety that has been DNA profiled so what could they be?

From here on it gets largely speculative but there is a very vague reference to a Worcester Silk Pear, although you won't find it any reference works. One anecdote from the Colwall area claimed it to "like a Black Worcester but different" the Colwall Orchard Group (COG) do know of a tree that it is claimed is a Worcester Silk. Frustratingly this tree did not produce a single fruit in 2016 so we have to wait and see if it will yield any clues this year. Conversely, anecdotal evidence from the Teme valley claims Worcester Silk to be a smaller dessert Pear, so this is an ongoing mystery.

There were once an array of these "Warden" type culinary pears. In 1676 nurseryman John Rea offered in his catalogue a Painted Pear, Tunip Pear, Canterbury pear, Quince Pear, French Warden, Spanish Warden, Great Warden, Parkinson's Warden, Red Warden, White Warden and Bell pear, claiming that all were very good pears to bake. Whilst in 1667, London nurseryman George Ricketts made reference to a Red Worcester and a White Worcester. Little is known of any of these varieties in terms of ever being able to



So, the Cripplegate and Martley type are, as I suspected, not Worcester Black,

<i>Sample name</i>	<i>Sample location</i>	<i>Result</i>
IWT	Pyrus 'Warden' grown in Turvey Community Orchard	Black Worcester
4UW	A pear being grown at Worcester Woods in Worcestershire	Black Worcester
5WSW	The pear being grown at Shuttleworth College in Bedfordshire, near to the Village of Old Warden Label – 'Old Warden Pear Trees'	Black Worcester
6WHO	A pear being grown at Harrold and Odell county park, Bedfordshire – labelled 'Old Warden'	Black Worcester
9WD	A specimen being grown at Dunton Community Gardens, Bedfordshire – labelled 'Pear Warden'	Black Worcester
10BWD	A specimen being grown at Dunton Community Gardens, Bedfordshire – labelled 'Worcester Black'	Black Worcester
2UM	A pear being grown at Martley in Worcestershire. but identical to 3BWC	Not Black Worcester
3BWC	A pear being grown at Cripplegate Park in Worcestershire – labelled 'Worcester Black Pear' Planted 1932	Not Black Worcester but identical to 2UM
7WR	A pear being grown by Chris Hill Rushden, Hertfordshire identical to 8WOW	Not Black Worcester & not identical to 7WR
8WOW	A pear being grown at Warden Street, Mr Lewis, Bedfordshire – thought locally to be a 'Warden'	Not Black Worcester & not identical to 7WR



attempt any form of identification as there simply isn't anything to go on – descriptions, anatomy, etc. just don't exist. So if the Martley / Cripplegate specimens were perhaps one of these historic varieties sadly we will almost certainly never know. It is claimed by Bunyard (1920) that the Black Worcester is almost certainly the same as the French variety Poire de Livre of Leroy, something future DNA may be able to investigate.

We should not be judgmental or harsh on the Cripplegate tree's claim; it could simply be that in 1932 it was believed to be Worcester Black, or that in the haste for a tree for a Royal dignitary to plant the parks department were simply supplied with a "wrong un". Mistakes and

misidentification are widespread in Pomology.

I have only come across four trees of the Cripplegate / Martley type so it is rare, far rarer than the Worcester Woods type. Attempts to graft some in 2016 onto modern commercial quince rootstocks were a spectacular failure, so in 2017 we are attempting to graft some onto *Pyrus communis* rootstocks, to see if pear-on-pear makes for better compatibility.

An ongoing work ... in progress

There is still a further complication in that 1629 Parkinson provided a drawing of the Warden pear showing it as a Pyriform shape (the classic long conference shaped pear) and on the counter seal of Warden abbey the pear is also shown as pyriform, whereas the Black Worcester is a conical to oval shaped pear, so if these historical representations are correct then the historic Warden is not Black Worcester but a different pear anatomically altogether. J A Parkinson in his *Paradisus Solei*, *Paradisus Terrestris* of 1629 illustrates the Warden and the Pound Pear alongside each other again the former a Pyriform the latter a conical / bergamot shape, so clearly 2 different varieties, yet by 1874 the eminent Pomologist Robert Hogg in his *Fruit Manual* has Black Worcester with the synonyms of Pound pear and Parkinson's Warden, so he seemingly lumped together what historical reference suggests were three different

varieties.

The entire subject of Pears is such an under studied area, compared to apples. It is claimed that the Romans and even the Normans had more types of pear than they did of apples so countless varieties have almost certainly gone extinct and even of those still left mysteries abound. I was sent some samples of three different pears growing on incredibly old trees in the Newland area and whilst my knowledge of pears is limited to say the least, (they were not remotely Warden types) I could find nothing to compare them with in the standard texts. So there may well be a number of as yet unidentified pears hanging on, on old trees tucked away in obscure corners of the county.

Whilst this type of fruit detective work is fascinating there is equally a large sense that it will forever be an incomplete story, too many parts of the puzzle are simply missing lost way back in history.

The longer this research has gone on, the more I am drawn to the conclusion that there was never one definitive Warden Pear but many types, of which Black Worcester was just one. So asking if the Black Worcester was the Warden Pear... one has to ask which Warden?

Wade Muggleton

Collaboration with the F P Matthews, National Trust and Duchy of Cornwall

We are delighted to make this announcement and do wholeheartedly thank those involved in giving MAN this opportunity.

Securing the geographic spread of the some of the local traditional apple varieties that MAN has found and authenticated is a high priority for us. As there is risk that an orchard may be affected by pests, drought and development, several sites are recommended by the Orchard Network (see below), and at least five trees in total to be held. We have been working to get this security for our authenticated and most valued varieties, ones local to our area that have been identified with great care and also have DNA fingerprints.

Secure orchards could be, in decreasing order of curatorial control by MAN:

1. Paramor (with possibly Tredomen)
2. Nick Dunn (on cordons with life

expectancy of 20–30 years, possibly 70–80 years on MM111)

3. National Trust (NT) – Berrington, Croft Castle, Brockhampton (2 copies between 3 sites)
4. National Trust – with more emphasis on cider apples at Brockhampton
5. Duchy of Cornwall (DoC) at a site in Herefordshire.
6. Orchard on private land should be viewed as a bonus, but not a reliable secure option, yet one for which we are most grateful. If it comes with a formal lease, that makes it a much more secure option.

There are about 55 authenticated varieties local to the Welsh Marches that we have selected for NT and DoC, some that were associated with Thomas Andrew Knight (for NT Croft Castle). In addition, where we only have one exemplar of a variety in one of our orchards, copies of these have been taken regardless of

whether subsequent identification shows that it is not unusual.

F P Matthews have kindly agreed to take about 150–250 varieties of MAN's choosing, grafted on MM106, and plant these as a row in one of their orchards. About half of those trees have already been grafted by Paul Davis and Tom Adams. These are at MAN's expense.

To date we have about 55 trees grafted onto M25 rootstock for the National Trust at Croft Castle and Berrington Hall.

Trees will be supplied as two-year old saplings for ensuring they can be planted in grazing-proof enclosures. Additional trees will be grafted for Brockhampton this winter: we expect. NT will re-imburse MAN for the cost of these trees. A similar set of trees have been grafted onto M25 for the DoC under similar conditions as NT.

(Re)-Building an Orchard Network

In *Apples and Pears* last year we mentioned that an Orchard Network (ON) was being rebuilt, starting with a meeting hosted by the National Trust. Natural England hosted a second meeting in Peterborough last March. There was quite a buzz of excitement, especially around collaboration together and of DNA Fingerprinting results and its implications.

Key points agreed:

- ON should seek to halt and if possible reverse the decline of orchards; while traditional (standard size trees) orchards have greater potential biodiversity value, ON will cover all types of orchards.
- The Network should become a “go to” group for information, including for Government; it can cover the whole of the UK and work with the Republic of Ireland.
- The Orchard Network website is independent but hosted on PTES website. <http://orchardnetwork.org>.

uk will be directed to <https://ptes.org/campaigns/traditional-orchard-project/orchard-network/> where all the ON content is held.

- PTES has available a database of orchard locations and biodiversity issues. (You may recall that Steve Dram gave us a superb talk at our last AGM). It includes a map showing location of Community Orchards, a fruit finder similar to that of the RHS which lists nursery sources, variety map and checks variety names and is aligned to the NFC database http://www.nationalfruitcollection.org.uk/input_list.php. (MAN members are encouraged to view these amazing datastores).
- Peter Laws of FruitID was very warmly thanked for initiating the DNA fingerprinting in 2016, and announced a campaign for 2017. As you will note from MAN's DNA results (page 5) it enables orchard groups to establish if a variety is unique or whether another orchard group holds a tree with the

same genes. This makes for far more efficient decision-making, including with variety naming, as we now know with whom to discuss matters!

- The Suffolk Traditional Orchard Group reported on their GIS-based mapping project of East Anglian orchards, showing what was present in the past and what now remains. It is being added to the PTES database and will become available online.
- National Trust shared their global material transfer agreement (MAN will comply with this in its collaboration with NT).
- Protection of orchards and their habitat from development is best effected via one or more planning tools: Tree Preservation Orders, creation of a named Local Wildlife Site, and for traditional/historic orchards use Historic Environment Records. There was agreement that a special category – possibly ‘Heritage Orchard’ – would be a useful approach.

Gelli Aur = Turnip Apple ?

I've been hoping for a holiday to Ireland for a year or two. Results of the fingerprinting provided me with the ideal excuse for action. How so?

Gelli Aur apple was found by Paul Davis at the Country Park in Carmarthenshire in 1995. It's growing on a huge tree, perhaps 0.9 m diameter, and may now be nearing 200 years of age. It's in excellent health. The Apple is a cooker and keeps well. Mr Crimble has kindly let us have a picture of the tree. MAN took scions and grafted it up for planting in March 2006 at Tredomen and more recently we planted it at Paramor. Paul Davis sells Gelli Aur on MM106 etc. rootstock [<http://www.applewise.co.uk/>].

As mentioned above. leaf samples were submitted last year for fingerprinting. The result was no match to anything at the NFC, but a match to a tree in Ireland held by the Irish Seed Savers Association (ISSA). Aha! Pat o'Mara is their orchard expert and I met him at the Orchard Network meeting in Peterborough last March. He kindly advised me that the original tree came from County Cork and was held by a Mr Rice, and called 'Turnip Apple'. That did it!

In the middle of June Jennifer and I were on the ferry from Fishguard for a week. The next morning at breakfast we heard an enthusiastic account of Highbank Organic Orchard near Kilkenny and of their cider and spirits [<https://highbankorchards.com/>]. They have 8000 bush trees (MM106 etc.), with pest control just waiting patiently for natural predation. What a way to begin the holiday!

With regret we tore ourselves away from Judy and Rod's hospitality and drove over to Scarriff where the ISSA orchards are [<http://store.irishseedsavers.ie/>]. Pat O'Mara was most kind in showing me around the nursery beds and orchards with several hundred

varieties of trees. They are situated in beautiful rolling hills with a delightful south facing aspect. Organic methods are used. Hares are excluded with fencing, but there are no rabbits (hurrah!), There's a trial of using marigolds for diminishing replant disease problems, black woven plastic sheeting is used for weed competition control on saplings, and instead of chicken wire young tree trunks are protected with "air posts" a corrugated black plastic sheet. Grass swarth is cut twice a year with a flail walk-behind mower. [This all reduces costs; are these things we should consider?]

Pat recommended some Irish varieties including 'Mrs Perry' which is excellent for Juicing, 'Knight's Templar' keeps till May, and 'Lough Key' is a crab apple with deep red flesh and juice. He also kindly confirmed I could contact Liam Rice to arrange a visit.

Well, we had a few gorgeous cloudless sunny days on the Dingle Peninsula, then headed to Fermoy and a meeting with Liam Rice and the Turnip. Liam took us to where the two original trees are, on his brother's farm. John and his wife Noolah were

most hospitable. They live in the farm that their grandfather doctor had owned, and from its elegant style it may be an early nineteenth century house. John took us to the trees, both of which had long fallen over but grown large new healthy branches as the photos show. Fruit and leaves looked remarkably healthy. I used hand-spans to measure the diameter of one tree, it was 750 mm making it a real veteran; the other was only slightly less. Perhaps these trees are the remnants of an orchard planted roughly contemporaneously with the house building.

It was Liam who had taken grafts about 10-20 years ago and it is those that ultimately found their way to the ISSA orchards. John and Noolah very kindly gave us tea and a helping of apple pie and ice cream, too. What a wonderful visit.

The immature apples are fairly similar to those at Tredomen, but we're hoping to get specimens from both original trees



in October for morphological comparisons. Then we'll know if Gelli Aur = Turnip Apple.

Meanwhile, the DNA fingerprinting campaign of 2016 showed four of our apples have Dutch or Flemish connections. Guess where my next holiday will be.

Ainsleigh Rice

Liberty Orchards, West Dorset



Redstreaks and Wassail 17 Hat Winners



We started talking about our orchard venture in our local pub in 2005 having agreed it was the perfect collaboration between us four friends – Pete, a dairy farmer with land, Alison, a horticulturalist, Bob, a food expert and Vicky, an experienced marketer. We were fortunate to be awarded a ‘Chalk and Cheese’ rural development grant in 2009 and were able to set up a joint new company with the following aims:

- ↳ to establish an orchard of local cider and dessert apples at Liberty Farm
- ↳ to provide horticultural work experience opportunities for young adults with learning disabilities
- ↳ to develop and make new apple-based products at the orchards
- ↳ to grow organically and to encourage biodiversity in the orchard

We planted the majority of our trees in 2010/11 and now have 10 acres of primarily cider orchards which are cropping well. As well as traditional West Country varieties, (e.g. Somerset

Redstreak, Yarlington Mill, Harry Master’s Jersey] we also have a small ‘Mother Orchard’ collection of local varieties which were identified and propagated as part of Liz Copas and Nick Poole’s DATA project, (e.g. ‘Tangy’, ‘Winter Stubbard’ and ‘Warrior’). We have been able to provide budwood from some of these varieties to propagate trees for a number of local school orchard projects. We have a larger planting of one of these varieties, ‘Marlpitt’s Late Bittersweet’, identified by Nick as making a particularly fine single variety cider. This year should provide us with our first reasonable crop to experiment with.

Following renovation of redundant farm buildings at our main orchard site we make and age our apple products on-site. Our company aim is to ‘explore the taste of apples’, making unique products which exploit the many flavours found in different apple varieties. We use high tannin bittersweet apple varieties for our Apple Balsamic Vinegar, which is made using Italian methods and aged in oak barrels

for 6 years. Our Golden Vodka is made using a single bittersweet variety, ‘Porter’s Perfection’, which provides a subtle, crisp ‘first bite of the apple’ taste. We also make an Apple Aperitif, which can be mixed with gin and lemonade to make a summer cup which we call ‘Dorset Pommés’. We will shortly be launching an Apple syrup. We have yet to make a cider!

For the past four years students from nearby Lufton College have been coming out to the orchards weekly for work experience and volunteering opportunities. This venture is going very well. Students really enjoy working outdoors as part of a team and seeing the whole process from blossom to fruit, picking, pressing, production and sales, and we benefit hugely from their input.

This year we have started running Tour and Tasting events at the orchards and would welcome fellow orchard-enthusiasts to visit us and share their experiences. Further details about us can be found at www.libertyfields.co.uk.

**Alison Lemmey, Peter Lemmey,
Robert Imlach and Vicky Morland**

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Apples and Type 2 Diabetes

And now for something very different. There is a suggestion from Cranfield University and Royal Botanic Garden at Kew that some older varieties, *Egremont Russet*, *D’arcy Spice*, *Wheeler’s Russet*, *Decio* (said to be from the time of Atilla) may have a health benefit above that of modern varieties as the higher levels of phloridzin may assist in control of blood sugar levels, and thus help with diabetes.

“An apple a day may keep the doctor away”, NFU online, British Farmer and Grower, July 2017 p37.
With thanks to Andy Pillow for spotting this gem

Anchorage

No, not the capital of Alaska but the subject of do your apple trees fall over? Root anchorage is a topic we do not often hear much about yet, judging by the number of horizontal or skewed angle fruit trees around, it can be an issue on some sites and has come up at our AGM as a subject for discussion.

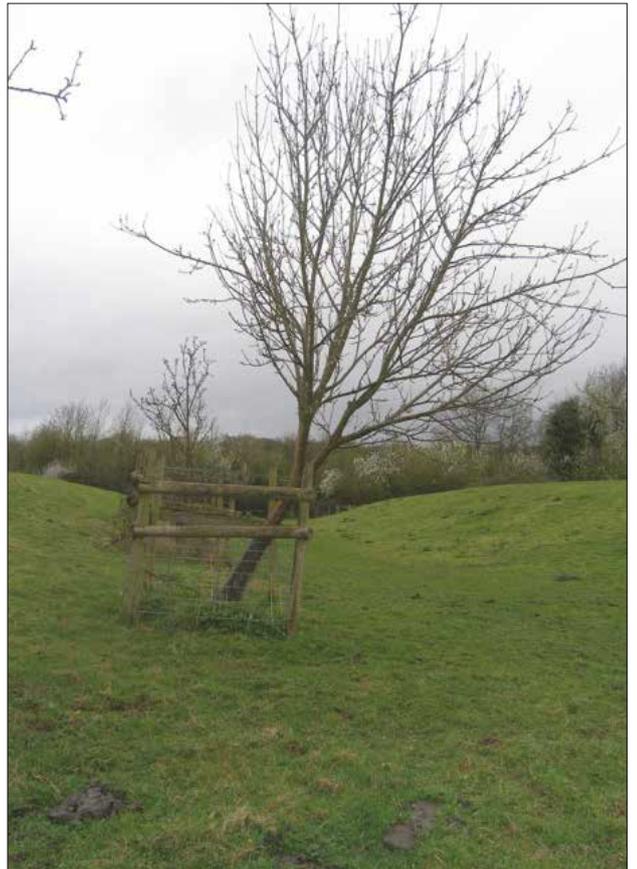
When choosing a rootstock-grafted fruit tree we are almost exclusively led by the size it will supposedly grow to, rather than it's ability to stand up by itself. To find out about their abilities in this capacity we need to dig a little deeper (excuse the pun) and do some reading up. For example, it is acknowledged that M9 will need staking for its entire life. But when it comes to the larger stocks I suspect I am not alone in experiencing some problems with the issue of anchorage.

Every site is different and underlying geology, depth of soil and drainage will all affect a tree's root development, spread and ability to hold on or grip in the ground. But rootstocks are clones and, as such, all of any given M or MM number will be the same, so it seems obvious that results will vary for uniform rootstocks on highly

variable sites. In some situations we are beholden to accepted criteria such as the instance of Countryside Stewardship where M25 is specified for Traditional orchard planting across the board.

It is worth remembering that the whole subject of rootstock research and development was driven by the desire of the commercial industry to have thousands of trees that all grew in the same way, to the same size and shape, and cropped at the same time. Prior to this, seedling rootstocks were used which obviously had very variable size and vigour yet would have had hugely variable genetics and some would have better suitability to local sites and conditions than others. In my own orchard I have a few pippin trees that I grew from a range of pips and some have incredible anchorage and are rock solid in the ground, while others appear slightly less well anchored.

Perhaps those of us with no commercial considerations or implications should experiment more with seedling rootstocks and thus we may find some more suited to our individual orchards /



A slumped M25 William Crump only being held up by its box guard.

gardens Whilst I have no overarching conclusion to this, other than that in some situations like heavy wet clay soils there does seem to be an issue with M25 and I have also had problems with pears on Quince A which in wet ground seem prevalent to slumping and falling over, I for one will be experimenting with more seedling rootstocks as an ongoing experiment.

It would be interesting to hear from members as to their experiences. I did graft the majority of my collection orchard onto MM111 for its reputation for good anchorage, but only time will tell how they fare on a windy NW-facing slope at 600ft in the Shropshire Hills.

Wade Muggleton



Rocking opens up a cavity around the trunk allowing water to sit in it.

MAN Accounts

Statement of Financial Activities for the year ended 31st March 2017

	Unrestricted Funds £	Restricted Funds £	Total 2016 £	Total 2015 £
Incoming Resources				
Annual Subscriptions	1,481	-	1,481	1,436
Apple ID	1,315	-	1,315	1,040
Gross Bank Interest	110	-	110	106
Donations	14,187	-	14,187	1,169
Life Members	200	-	200	100
Misc. Receipts	836	-	836	-
Pomona Project	142	-	142	1,536
Speaker Fees	-	-	-	-
Grants Received	1,500	-	1,500	2,291
Events	-	-	0	291
Sale of Books & CD's	1,326	-	1,326	1,377
Sale of Trees	200	-	200	17
Peelers	336	-	336	644
Grafting/Pruning Courses	250	-	250	540
Juice Sale	-	-	-	-
Closing Stock	9,112	-	9,112	9,434
Total Incoming Resources	30,995	0	30,995	19,991
Resources Expended				
Direct Charitable Expenditure:				
Running and maintenance costs	14,318	0	14,318	9,707
Opening Stock	9,434	0	9,434	10,356
Total Resources Expended	23,752	0	23,752	20,063
Net Incoming Resources	7,243	0	7,243	(72)
Fund balances brought forward at at 31st March 2015	65,418	0	65,418	65,490
Fund balances carried forward at 31st March 2016	72,661	0	72,661	65,418

All amounts above are derived from continuing operations and the Charity has no recognised gains or losses other than those passing through the Statement of Financial Activities

Balance Sheet as at 31st March 2017

	<u>As at 31/03/17</u>		<u>As at 31/03/16</u>	
	£	£	£	£
Fixed Assets held for Charity Use				
Land & Improvements	36,000		36,000	
Orchard Equipment	1,895		2,106	
Computers	148		196	
Library, Reference books & Equipment	3,000		3,000	
		41,043		41,302
Current Assets				
Debtors	408		384	
Bank Balances	22,506		14,682	
Stock held for Resale	9,112		9,434	
		32,026		24,500
Less Current Liabilities				
Creditors	408		384	
	31,618		24,116	
NET ASSETS		72,661		65,418
Represented By:				
Capital Reserves				
Restricted Funds		72,661		65,418

Major apple events

* = Apple display and MAN ID service.

* Saturday/ Sunday, 26-27th August. Black Mountains Festival, Talgarth, Powys. MAN will be in the Cattle Market on the Sunday, from 11.00-17.00pm. Display of early apples & identification of ripe early varieties. Tastings and fruit for sale.

Saturday/Sunday 26-27th August. Witcombe Cider Festival
www.witcombeciderfestival.co.uk 50 different cider & perries and a great range of activities.

Friday-Sunday 1st-3rd September. Ross Cider Festival. Ross-on-Wye Cider & Perry Company
<http://rosscider.com/events/cider-festival/>

Sunday, 3rd September. Cefn Ila, near Usk
<http://www.woodlandtrust.org.uk/visiting-woods/wood/5611/cefn-ila/>, Open day organized by Woodland Trust.

Friday to Sunday 8th to 10th September.
<http://www.foodfestival.co.uk/TheLudlowMarchesFoodandDrinkFestival>. There is always a good selection of local cider makers and fruit juicers in attendance.

Sunday, 10th September from 14:00, Hartpury Heritage Day, Orchard Centre, Blackwell's End, Hartpury GL19 3DB <https://www.hartpuryheritage.org.uk/our-initiatives/the-national-perry-pear-centre/background/>. The National Collection of Perry Pears Over 50 varieties on display (crops permitting!). Explore the Wildlife Wetland and bring your perry Pear for identification

* Sunday, 10th September. Entertainment under the Apples at Penlanole, near the Vulcan Arms, south of Rhayader, Powys. Please note that for safety reasons, the approach will be to the back of the farm and will be signposted from the A470. From 2.00-5.00pm. For details Tel. 01597-811487. <http://www.penlanole-organics.co.uk/events.php>

Sunday 10th September. Frampton-On-Severn Country Fair, www.framptoncountryfair.co.uk Gloucestershire Orchard Trust will have a stand and apple display.

Thursday 14th September at the Harp Inn Glasbury (tentatively) MAN ID Session on early variety apples. Weekly workshop from Thursday 28th September from 10:00.

* Saturday/Sunday, 23rd/24th September. Autumn Show at Three Counties Showground, Malvern <http://www.threecounties.co.uk/tradestands/malvernautumn/>

Thursday, 5th October. [tbc] Trumpet Ploughing Match & West of England Fruit Show. (No apple display.) Details of venue from Mrs. J. Green, Warren Cottage, Lower Eggleton, Ledbury HR8 2UJ. Tel. 01531-670608.

* Saturday, 7th October. Applefest. Tenbury Wells, held on the town's Burgage Recreational Area, from 10:00-17:00, Further details: www.tenburyapplefest.co.uk

* Saturday, 7th & Sunday 8th October. Berrington Hall, National Trust property near Leominster 10:00-17:00. "Various stalls, apple display and purchase. Identification service by MAN with pruning and grafting demos. Food, music, horse and carriage rides". Details from Wade Muggleton, secretary@marcherapple.net
<https://www.nationaltrust.org.uk/events/5f62deb6-143e-4765-875d-a346462653de/pages/details>

* 7th October, Madley Environmental Centre, Stoney Street, Madley, Hereford. HR2 9NH, 11:00-15:00. Apple pressing and tasting, orchard talks, apple based games and activities for children, apple identification, juice and cider stalls. Refreshments available include hot pork rolls with apple sauce, apple cakes and puddings, teas and coffees. Details from Louise Murphy 01981 251616, email contact@mesc.org.uk. Website www.mesc.org.uk

* Saturday 14th October. Apple Day at The Green Wood Centre, Coalbrookdale near Telford, from 10:00-17:00 <http://www.shropshireappletrust.co.uk/appleday.php> Apple pressing using the large community apple press, fresh juice for sale; hog roast, live music, apple display and apple trees for sale, cider bar, WI stalls, craft demonstrations and hands-on opportunities to practise polelathing, pottery, etc. Contact: 01952-433594 or 432046.

* Saturday-Sunday, 14-15th October. 'THE BIG APPLE'. Weekend rural events in and around Much Marcle <http://www.bigapple.org.uk/>

£2 entry to historic grounds of Hellens, from 11:00-16:45 where there will be apple and pear displays, ID services and tastings of a selection of cooking apples. Further details of talks, demonstrations and other events, from Jackie Denman, Tel. 01531-670544.

* Saturday, 21st October. Leominster Apple Fair at The Priory, Leominster. 10:00-16:00. Parking nearby in Bridge Street Car Park. "Various stalls, apple display and ID by MAN". Details from Felicity Norman, Tel. 01568-780886. Details to be confirmed.

* Saturday and Sunday 21st-22nd October. National Botanic Garden for Wales, Llanarthne, SA32 8HN, 10:00-18:00, Apple Weekend <https://botanicgarden.wales/visit/whatson/>. MAN members will be there for identification. Paul David attends every year with a display of his apples and also brings pot grown trees along for purchase.

Friday 21st October. National Apple Day <http://commonground.org.uk/projects/orchards/apple-day/>

* Sunday, 29th October. Chepstow Apple Day, organized by Chepstow Town Council at the Drill Hall, Chepstow. Admission free. 11:00-16:00. MAN Apple display, apple juice, cider and perry tasting.

Saturday 25th November. **MAN AGM** at 11:00 in the Village Hall in Pudleston (between Leominster and Bromyard), HR6 0RA (though if using SatNav better HR6 0QY) <http://pudlestonvillagehall.com/> MAN AGM, with guest speakers Karen Humphries of the Three Counties Traditional Orchard Project and Rosemary Winnall of the Wyre Forestry Study Group.

For 2018 it is likely that again we will have similar orchard maintenance activities next winter season, with details to be made available nearer the time on the website.

Early January: Leominster Morris, The Wassail. Details will be announced nearer the time on our website.

Saturday 10th February 2018 (to be confirmed, weather dependent, alternative Sunday 12th) 11:00-15:00 at Tredomen - Pruning Course.

Available from the Marcher Apple Network

WELSH MARCHES POMONA is written by Mike Porter and illustrated by Margaret Gill. It contains beautifully illustrated descriptions of 31 varieties of local apples, some of which have never featured in the apple literature. Life-size views of ripe fruit and blossom at both pink bud and fully open stages, plus line drawings of leaves and sections of fruit make this a truly unique reference work.

Hardback format, 300mm × 230mm; full colour throughout. 96 pp.

Price £15.00 + £5.00 p and p (UK)

Apples of the Welsh Marches describes 54 old varieties of apples cultivated in the traditional orchards of the region, plus 24 further varieties grown here extensively in the past and still found in local farm orchards.

Price £5.00 inc p and p in the UK.

Back Numbers of the *MAN* Newsletter

Many of the articles featured contain advice and ideas which have stood the test of time and still make an interesting read. Copies of previous issues are now available as PDFs — see web site for order form with full details

The **PARAMOR ORCHARD CWMDU** an illustrated flora, 2014. Includes the history of the acquisition of the orchard. With detailed, botanically accurate black & white illustrations which could be coloured in by children. The original black & white drawings by Dr Margaret A V Gill, have been deposited in the National Museum of Wales, Cardiff.

Price £3 including p and p in the UK.

To Order all items: Preferably download an order form from www.marcherapple.net/books.htm — note that *MAN* now has a PayPal account — or write to Membership Secretary, Marcher Apple Network, 25 Grange Road, Shrewsbury, Shropshire S&3 9DG. Cheques should be made payable to Marcher Apple Network.

THE APPLES & ORCHARDS OF WORCESTERSHIRE by Wade Muggleton This book captures a few of the stories of the apples of a county once so renowned for its orchards.

With 32 varieties described and photographed, as well as chapters on lost varieties, heritage varieties, Pears, Orchard stories and aftercare the book will be available at all events that MAN attend as well at www.marcherapple.net/shop all proceeds from the sale go to Marcher Apple Network

Price £8.50 including p and p in UK.

MAN Library contains over a 100 books and major articles on fruit, principally apples. Members may arrange to borrow these, and the public by specific arrangement (donations are welcome). A library listing is given in <http://www.marcherapple.net/libr.htm> When new website is launched there will be a new address. For more information contact secretary@marcherapple.net



APPLES AND PEARS

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Apples & Pears Autumn 2017