.



Forestry and Wood Update

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# Irish Sitka spruce dynamic yield model

The Irish Sitka spruce dynamic yield model will be launched at a workshop on 13 May 2005 at Tipperary Institute, Thurles. The workshop will be presented by Paddy Purser (PTR Ltd.), Jacques Hamel (PTR Ltd.) and Ted Lynch (Coillte), who will give an overview of the model development and rationale, and demonstrate the model. This will be followed by assisted exercises on production forecasting (no thin and thin regimes). Kevin Black and Bruce Osborne will then give a presentation on *Planning for the future: development of mechanistic models to assess forest productivity in response to climate change.*

As this is a hands-on workshop, the number of delegates will be restricted to a maximum of 30 – early registration is therefore essential as places will be filled on a first come first served basis. Registration forms can be downloaded from the [COFORD website](http://www.coford.ie/seminars2005/YieldModel.pdf).

If you wish to attend, please contact COFORD as soon as possible – either by telephone   
01-2130725 or email [info@coford.ie](mailto:info@coford.ie). The cost of attending will be €100.00. This includes a copy of the software and manual as well as lunch and other refreshments.

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# Wood Energy 2005

COFORD and the Renewable Energy Information Office of Sustainable Energy Ireland will once again host a Wood Energy conference this year. This will be the fourth conference in this series and will be held at Druid’s Glen, Newtownmountkennedy, Co Wicklow, on 19 and 20 May 2005.

**Wood Energy 2005** will build on the successes of previous events. Topics to be covered include:

Wood Heating – A Booming International Business

* Wood fuel markets in an international context
* An industry perspective on the use of wood heating

**Wood Energy in Ireland Takes Off**

* Renewable energy installers academy - training wood energy professionals across the island
* Experience of developing Ireland’s first integrated wood based CHP and pelleting plant

Wood heating in large buildings – Irish experiences

## Fuel Supply and Project Finance

* Fuel resource and supply chain development in Ireland
* Quality of wood fuels and wood technology
* Financing bioenergy projects
* **Wood boiler demonstration:** Presentation of wood pellet heating system at Coillte’s 25,000 sq ft HQ
* **Training workshops**: On the second day of the conference delegates will be able to choose one of the following training workshops: *Wood heating* or *Wood biomass harvesting and supply chains* (including field demonstration of chipping)

Booking forms and the programme can be downloaded from the [COFORD website](http://www.coford.ie/seminars2005/WoodEnergy-2005.pdf). For further information contact the organisers:

COFORD, Arena House, Arena Road, Sandyford, Dublin 18. Tel: 01-2130725. Email: [info@coford.ie](mailto:info@coford.ie).

SEI REIO, Shinagh House, Bandon, Co Cork. Tel: 023-29145. Email: [renewables@reio.ie](mailto:renewables@reio.ie)

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# Wood biomass harvesting and supply chain workshop

The 4th COFORD/SEI Wood Energy Conference will include an option to attend both the conference and a special workshop on wood biomass harvesting and supply chains. This workshop will include a copy of a new publication by COFORD entitled ‘*Wood for Energy Production*’. This publication is an update to an earlier Danish publication of the same name. We are grateful to the authors for permission to use much of the original material. Pieter Kofman is co-ordinating this Irish version.

The workshop will cover the following topics:

* Introduction, use of wood fuels, importance of effective supply chain
* Overview of consumption in other EU member states
* Physical characteristics of wood fuels and introduction to developing biomass standards
* Production of woodchips
* Alternative systems (whole-tree terrain, whole-tree roadside, energy assortment, residue bundling)
* Chipping technology
* Storage/drying
* Transportation, delivery and offloading
* Purchase and sale of wood for energy production
* Conversion rates from cubic metre overbark to energy units
* Quality specification
* Contract terms
* Environmental issues of handling woodchip/biomass
* Recycling of wood ash
* Utilisation of wood chip
* Overview of the different end uses - small scale woodchip boilers - large scale use for process heat - electricity generation

To reserve a place at this training workshop please download the booking form and follow the booking instructions at www.coford.ie

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# Information on Biomass Harvesting Equipment and Chippers

The COFORD Wood Energy website ([www.woodenergy.ie](http://www.woodenergy.ie)) has been receiving many queries about biomass harvesting and chipping equipment. We therefore decided to compile a list of suitable machinery along with key performance data. Pieter Kofman, a Danish Wood Energy Consultant, undertook this for us. During his research he came across a similar database written in German and hosted by KWF. We therefore agreed with KWF to jointly expand this database and to make it available in English also.

To access this list of biomass harvesting and chipping equipment please click [here](http://www.kwf-online.de/deutsch/index.htm) to access the KWF homepage - then follow the *Wood Chipper also in English* link.

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# Managing our broadleaf resource to produce quality hardwood timber

On 23 and 24 June 2005 COFORD will present the sixth in a series of two-day events on growing and managing broadleaved trees and preparation for sale of hardwood timber lots in Ireland. This follows a number of very successful similar events organised by COFORD throughout the country since 2002. The seminar will take place at the Johnstown House Hotel, Enfield, Co Meath.

In recent years there has been an increasing trend towards planting of broadleaved species. It is estimated that 20,000 ha of broadleaves have been planted in Ireland in the last 10/15 years, with the majority being planted by farmers. This area is likely to increase substantially in the future as the Forest Service target for broadleaves, which was originally set at 20%, has recently been increased to 30% of the total annual afforestation programme. Broadleaves require more intensive management than conifers to achieve optimum quality. While there is much information and expertise available in Ireland on the establishment and management of conifers, practical experience in the early management of broadleaves is not as extensive. COFORD has been supporting research on early management to include formative shaping, tending and thinning of a range of species. Teagasc, supported by the EU Framework Programme and COFORD, has been working on the shaping of broadleaves since 1992 and has produced information on shaping protocols for ash and sycamore. The COFORD project, BroadForm, was established to determine the optimum regime to produce the best quality timber; to examine three separate interventions (shaping, tending and thinning) and the impact they have on crop quality; and to develop guidelines for the production of quality stems in all broadleaved plantation.

Limited volumes of hardwoods are presently available from Irish forests. Traditionally, Irish-grown hardwoods have found their way into lower value end uses but have the potential for more lucrative markets. In recent years new pioneering developments are emerging in this sector. These developments will ultimately result in higher returns for the grower. This conference brings together a group of specialists, all experts in their fields to present their views on current and future developments in this sector.

This event is aimed at owners and managers of broadleaved woodland as well as consultant foresters and all those working in the management of broadleaved trees. It is a recognised event under the Society of Irish Foresters’ Programme of Continuous Professional Development (CPD), equivalent to 16 points.

The programme for 23 June will be chaired by Donal Whelan, Technical Director, Irish Timber Growers’ Association, and will include the following presentations:

* The growing broadleaf resource – what is out there? - *Seamus Dunne, Forest Service*
* Growing broadleaves – as the grower sees it - *Joe Barry, Grower and Journalist*
* Production of quality broadleaves – the need for good management including shaping, tending and thinning - *Michael Bulfin, Teagasc*
* Threats to the broadleaf resource – the impact of the grey squirrel - *Dr Michael Carey, Forestry Consultant*
* Further threats to the broadleaf resource - both native and introduced deer - *Barry Coad, Game & Deer Manager, Coillte*

After lunch delegates will depart for a field visit to Joe Barry’s plantation at Larch Hill Stud, Kilcock, Co Kildare. Bus transportation to the field visits will be provided, departing from the hotel carpark at 14:00.

The programme for 24 June will be chaired by Tony Mannion, Technical Director, Society of Irish Foresters, and will include the following presentations:

* Introduction to hardwood timber sales
  + Preparation and presentation of woodlots
  + Valuing and grading of hardwoods -*Gavin Munroe, Hardwood Consultant*
* Options for sale of hardwoods – standing sales or felled and on roadside - *Gavin Munroe, Hardwood Consultant*
* Sourcing and processing the hardwood resource – what are the main issues? - *Seamus Heaney, Coillte*

After lunch delegates will depart for a visit to Donadea Forest Park where practical applications of all aspects of preparation and sale of hardwoods will be examined. Again, bus transportation to the field visits will be provided – leaving from the hotel carpark at 14:00.

For more information on this event, visit [www.coford.ie](http://www.coford.ie) or contact John Fennessy (tel 01-2130725 or email john.fennessy@coford.ie).

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# CARBON CORNER

## Wood biomass, white coal, green energy

Organisers of the COFORD/SEI wood energy event have used the white coal, green energy slogan to great effect in the past. But like all good slogans it has a shelf life, and does not bear continuous repetition. Once the message has been effectively transmitted it is time to move on. But how can we, in the forestry sector, be sure the message has impacted?

For a start there are two significant CHP plants on separate ends of the island, at Grainger in Cork, and at Balcas in Enniskillen in Fermanagh, supplying over 3 MW electrical power, and, in Balcas, putting out wood pellets to supply a burgeoning domestic demand for green energy. A wood heating system in being put in place at the Forest Service building is Johnstown Castle in Co Wexford – that will be up and running next winter. A classic case of do as I do, not do as I say. The supply chain for the wood chip will involve farmers who have planted forest under schemes administered by the self same Forest Service.

Carbon Corner also detects a mind shift in the political arena: wood energy has at long last become a topic for discussion in the corridors of power and is recognised as a serious player that can deliver clean renewable energy in support of national greenhouse gas emission and renewable energy targets - Green power, White energy, Green light.

But we still need to roll out of many more private sector wood energy projects. To address this issue COFORD and SEI will be hosting Wood Energy 2005 at the Marriott Druids’s Glen and Country Club in Co Wicklow on 19 and 20 May. Excellent speakers have been lined up for the event, including those with expertise in the financial aspects of funding new wood energy projects. The second day will comprise training workshops on wood energy system design, and on wood energy supply chains.

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# Seminar on non-wood forest products

COFORD hosted a seminar on ***Growing markets for non-wood forest products*** on 15 April 2005, at the Tullamore Court Hotel, Co Offaly. The presentations made at this event are available to download from the [COFORD website](http://www.coford.ie/seminars2005/NWFP/NWFP.html).

Opening the conference, Mr John Brown TD, Minister of State at the Department of Agriculture and Food, commented that ‘*while Ireland’s forests are mainly grown for wood production, it should not be forgotten that they are also providers of foliage, fruit and other important services such as biodiversity, carbon sequestration, recreation and amenity’* Minister Brown also referred to the increasing emphasis on the multifunctional role of forests.

The conference programme opened with an overview of non-wood forest product development in Europe presented by Sven Walter, FAO NWFP Programme Manager. He defined non-wood forest products as ‘*goods of biological origin other than wood, derived from forests, other wooded land and trees outside forests’* .

In her presentation ‘*Non-wood forest product development in the UK’* Dr Jenny Wong concluded that there are many opportunities for rural income diversification through the further development of the non-wood forest products sector in Britain, through the development of edible goods such as preserves, jams, beverages and wild fungi. Other areas include native tree, shrub and wildflower seed and moss collection on a sustainable basis.

In 2004 COFORD published a report on the markets for non-wood forest products and its main author, Pat Collier of CollierBroderick Management Consultants, presented ‘A*n overview of market potential for non-wood forest products in Ireland’.* This study examined the potential markets for the main categories of non-wood forest products, the market requirements, feasibility of production, indicative returns and possible obstacles to the development of markets. The study found that the greatest potential is in the area of foliage sales. Relatively high costs and poor climatic conditions make alternative healthcare, oils and oleoresins uncompetitive. There may be limited opportunities for specialist products in the edible forest products and tourism sectors but further research is required in these areas.

The foliage industry started in Ireland in the 1960s and cultivated foliage began to be grown here from the mid 1990s. The industry is concentrated in the southern counties, mainly Kerry, Cork, Waterford and Wexford. There is a very definite and sizeable European market for cultivated and wild foliage that is available for harvest in Ireland and Jim Costello, Forest Products Ltd., and Andy Whelton, Teagasc, Kerry, outlined its development and potential, highlighting for its future development the need for research at all levels. They noted that the sector needs more private investment especially in the area of product development; it requires more value adding such as branded products and movement up the value added chain; and that the industry must now go for rapid growth and expansion.

Kevin Collins, Forest Service, presented a paper on the ‘*Promotion of non-timber benefits by the Forest Service*’ He gave an overview of some of the general and specific measures used to promote non-timber benefits. He mentioned the Native Woodland Scheme, which is based on partnership involving Woodlands of Ireland, National Parks & Wildlife Service, Heritage Council, Regional Fisheries Boards, Coillte, COFORD and others. Concluding his paper Kevin suggested that through realising non-timber benefits in our forest it will allow us to make the very most of Ireland’s woodlands and forests and it will also help in promoting the increased value that the general public places on this national resource. He concluded that these are both essential ingredients for the success of Irish forestry in the 21st century.

Bill Murphy, Manager Recreation Coillte, next presented a paper on ‘*Recreation in a commercial forest environment*’ Bill spoke of a changing Ireland where 70% of the population is strictly urban, and where the population is set to increase by 25% by 2020 with a declining agricultural sector. Acknowledging the changing operating environment for forestry and the role of recreation, from Coillte’s perspective it is their ‘licence to operate’. Coillte is presently considering recreation in a commercial environment and what are the commercial opportunities. Recreation can offer commercial opportunities, for the large and small owner, but it also delivers high public support to the forest industry.

The Christmas tree sector is reasonably well developed in Ireland and Noel Moran, Managing Director of the Emerald Group spoke on ‘*Christmas trees development potential in Ireland’* In the European Christmas tree sector between 50 and 60 million trees are produced annually. Serious commercial production commenced in Ireland in the early 1980s, mainly produced on the American model. The main species are noble fir, Nordmann’s fir and Norway spruce. The history of growing Christmas trees in Ireland is based on state investment and private investment companies as well as individual growers. Future requirements for success are quality inputs of land, plants and people and a fully developed knowledge base. Ideally units will have to have lower costs of production in small manageable units with a lower dependency on outside labour. These units will have full mechanisation and a continuous and consistent production cycle. They will provide a full customer service and be market responsive.

The final paper was by Una Fitzgibbon of Bord Bia who spoke on ‘*Markets for speciality foods from Ireland’s forests’* Una introduced us to the speciality food market, talked of consumer trends in food and discussed wild and forest foods. She went on to develop the notion of what we mean by wild foods and talked of product or brand cue and explained wild food business models. She concluded with an examination of the vast potential for speciality foods from our forests.

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# Help find the best British and Irish Native Timber Trees

Woodland Heritage in conjunction with the British and Irish Hardwoods Improvement Programme (BIHIP) are offering at least seven and possibly nine Sir Eric Weiss prizes of £250 (~€350) each to landowners, local authorities, the Forestry Commission and the public who can locate the best mature examples ('plus' trees) of oak (*Quercus robur* or *Q. petraea*), ash (*Fraxinus excelsior*), common walnut (*Juglans regia*), sweet chestnut (*Castanea sativa*), silver birch (*Betula pendula*), sycamore (*Acer pseudoplatanus*) and wild cherry (*Prunus avium*). If no overall prize-winning tree of any of the species is found in Scotland or Ireland, there will be an additional prize of £250 for the best tree (of any of the species) in the country concerned.

Such 'plus' trees will form the parent material in a programme for improvement of broadleaved trees for woodlands. The best of them will be used to create seed orchards, to provide British and Irish seed from good quality parents of known origin, to the nursery industry. This approach has been successfully applied by East Malling Research to wild cherry, resulting in the establishment of regional seed orchards and the release of the WildstarTM collection. It is clear that trees of the highest quality are essential.

Ideally trees should be 50 years or more but outstandingly good younger trees may also be considered. They should be growing in woods, parkland and public gardens in Great Britain or Ireland and should have excellent timber characteristics - clean, straight cylindrical stems, vigorous growth, a flat branching angle, light branching and freedom from pests and diseases.

If you feel you have very high quality examples of any of these species, then please complete the form available on http://www.bihip.com/, http://www.woodlandheritage.org.uk/ or www.forestresearch.gov.uk and send it, together with a photograph of the tree (including some idea of scale), to Dr Jason Hubert at the address below. Entries will close at the end of December 2005. Winners will be announced on these websites probably in February 2006.

Please send completed entries either by post to: Dr Jason Hubert, Forest Research, Northern Research Station, Roslin, Midlothian EH25 9SY, or jason.hubert@forestry.gsi.gov.uk

*Conditions of entry*

1. Only the owners of the trees entered, or their agents, may formally enter the competition. Their permission must be sought if others enter trees.
2. Members of BIHIP and East Malling Research (EMR), or their families are not eligible.
3. Each entry must be accompanied by a completed tree description form and a photograph of the tree.
4. Trees that have already been selected by BIHIP or EMR are not eligible to be considered.
5. The competition will be judged early in 2006. The decisions of the judges will be final.

Note:

* Trees will be judged mainly from the photos submitted.
* Only the best 3-4 of each species will actually be visited.

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# Revision of Timber Roadside Fencing Standards

The Timber Standards Consultative Committee (Task Group 2, working group 4 - *Fencing & preservation*) has now drafted revised standards for Timber Post and Rail Roadside Fencing and the NSAI are looking for public comment. The revision is necessitated due to changes in the availability of timber preservation products.

You are invited to download the documents (IS 435 - Part 1, 2 & 3) from the NSAI's website and review for comments.

[IS 435 - Part 1](http://www.nsai.ie/Standards/upload/part1.pdf); [IS 435 - Part 2](http://www.nsai.ie/Standards/upload/part2.pdf); [IS 435 - Part 3](http://www.nsai.ie/Standards/upload/part3.pdf)

[Comment Template for I.S. 435 Timber Post and Rail Roadside Fencing](http://www.nsai.ie/Standards/upload/comment_templ.doc)

Any comments should be returned **BEFORE MAY 10TH, 2005** (using the above comments template) to: Linda Hendy, (Secretary, NSAI TSCC committee), N.S.A.I., Glasnevin, Dublin 9, Ireland. Tel: 01-807 3867; Fax: +353 1 807 3938; Email: [Linda Hendy](mailto:linda.hendy@nsai.ie)

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# EURIS Project CD now available

The EURIS project (*Europeans Using Roundwood Innovatively and Sustainably*) aimed to identify new and innovative processes and products for 'traditionally' non-commercial tree species and/or timber specifications.

Through case studies compiled by eight European partners, encompassing appropriate silvicultural, harvesting and processing methods and observing the principles of local added value, the project sought to develop curriculum which supports Sustainable Forest Management. The project had two Irish partners (Tom Kent, WIT, and Jerry Hawa, Sylviron Ltd). The final output of the project is a very impressive CD-ROM which contains the following study modules:

* Forest policy in Europe and its relevance to the EURIS Project
* Forest and woodland resources relevant to EURIS
* Quality issues for end uses
* Processes/durability
* Processing techniques which can utilise low quality and/or small dimension timbers
* Uses of roundwood in building construction
* Civil engineering uses of low-grade roundwood
* The use of brushwood in the control of wind erosion on soft coasts in Ireland
* Craft
* Roundwood fencing solutions
* Recreation
* Wood energy
* Agricultural uses

Each study module consists of a PowerPoint presentation, study notes and self-assessment tools.

The project was funded under the Leonardo da Vinci programme. For further information and a copy of the CD-ROM please email [sylviron@anu.ie](mailto:sylviron@anu.ie).

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# Trees, Forests and the Law in Ireland

The first edition of ***Trees, Forests and the Law in Ireland*** by Damian McHugh and Gerhardt Gallagher sold out soon after it was launched in November 2004. The second edition of this COFORD publication is now available. Copies can be purchased on-line via the bookshop link on the COFORD website, or by calling COFORD on 01-2130725.

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# COST E44 Conference

The conference of COST Action E44 – *Wood Processing Strategy* - will take place at BOKU University, Vienna, Austria, on 14 and 15 June 2005. The theme of the conference is ***Broad spectrum utilization of wood***. The following presentations are listed on the programme:

Session 1: Tree quality and processing

* *Scanning techniques as tools for integration in the wood conversion chain - some industrial applications.* A. Grönlund, S. Grundberg, J. Oja, J. Nyström
* *Alternative solutions for red oak (Quercus rubra) from converted forests in Flanders, Belgium.* D. Vansteenkiste, L. De Boever, J. Van Acker
* *Specific wood and timber properties and competitive ability of Nordic Scots pine in mechanical wood processing.* E. Verkasalo, M. Riekkinen, M. Nylinder; H. Lindström
* *Modelling of the sawn timber yield of beech log with regard to the dimension and the red heartwood proportion.* F. Hapla, D. Ohnesorge
* *WQI - A new Zealandisch lean, mean and hungry wood quality initiative compared to Swedish initiatives.* O. Hagman

Session 2: Economic and consumer parameters

* *Consumers' preferences to treated wood.* A.Q. Nyrud, A. Roos
* *Integrated production and marketing strategies in European sawmills.* H. Chrestin
* *Interaction between R&D and business*. M. Kairi
* *Creating more added value for forest products*. N. A. Leek
* *Wood prices in post-socialistic economy*. W. Strykowski

Session 3: Species and applications

* *Possibilities of utilisation of small-sized coniferous wood in Bulgaria*. J. Mihailova, T. Todorov, R. Grigorov
* *Poplar timber for light construction: non-uniform moisture distribution after kiln-drying.* L. De Boever, D. Vansteenkiste, J. Van Acker
* *Stem analysis - the better look to intra-tree variability*. M. Grabner
* *Potential for developing the production of solid wood products taking into account the wood characteristics.* N. Tritchkov, P. Antov
* *High quality beech glulam*. J. B. Ressel, P. Becker
* *Wood properties of larch grown on plantation vs. oldgrown natural sites*. R. Wimmer
* *Advantages and disadvantages of mixed wood species utilization for wood based panels*. S. Medved

Contact Daniela Romstorfer, BOKU University, Peter-Jordan-Straße 82, 1190 Wien, Austria or fax 0043-1-47654-4295. Email: [daniela.romstorfer@boku.ac.at](mailto:daniela.romstorfer@boku.ac.at). For more information, visit [www.cost-e44.be](http://www.cost-e44.be)

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# Bioenergy in Wood Industry Conference

This conference is to be held from 12 to 15 September 2005 in connection with the International Bioenergy and Wood Exhibition in Jyväskylä, Finland. The programme is now available at [www.finbioenergy.fi/bioenergy2005](http://www.finbioenergy.fi/bioenergy2005). The conference will focus on the factors affecting the future of the bioenergy opportunities in fuel production, heating and power production in wood industry. The topics are timber felling wood residues as fuel, industrial by-products as biofuel, by-product refining to pellets and their use for heating and power production in the wood industry, as well as emission trading. Technical excursions will be held after the conference. Papers are invited on the following topics:

* Strategies, Politics, Legislation Tools and Implementation Issues: possibilities to support the EU-targets, Kyoto Protocol, national targets and free energy markets, security of energy supply
* Bioenergy Markets and Business: international bioenergy markets, financial instruments, green certificates and emission trading, price competitiveness, management systems
* Fuel Production in Sawlog Production: production, pre-treatment, procurement, transport and logistics
* Wood Industry Fuel: potentials, quantities, measurements methods, qualities and properties
* By-product refining: Pellets, briquettes and pyrolysis oil etc. production and use
* Combustion and boiler systems: technologies and systems for wood industries
* Combined Heat and Power Production (CHP): powerplants, small scale technologies and systems for CHP production
* Environmental Technologies: flue gas cleaning, ash handling and recycling, sustainable development

More information can be found at <http://www.finbioenergy.fi/bioenergy2005>. Contact Professor Dan Asplund, Chairman of Conference, email: [biowood2005@jsp.fi](mailto:biowood2005@jsp.fi)

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