

Review of available herbicides and insecticides expected to be available for use in forest & farm woodlands in 2019

Withdrawn and introduced products

Since the last review early in 2017 a further four pesticides previously used in forestry have been revoked under the EC review process, or have not had their UK forestry off-label approval (EAMU) renewed:

Glufosinate ammonium
A contact weedkiller sold as Challenge or Finale, typically used on natural regeneration sites.

Possible alternatives: glyphosate (Roundup) and propyzamide (Kerb), carfentrazone ethyl (Shark)

Imidacloprid
A neonicotinoid insecticide used to pre-treat transplants for protection against hylobius.

Possible alternatives: alpha-cypermethrin (Alpha 6ED) & acetamiprid (Gazelle SG).

Metsulfuron methyl
A foliar herbicide used in farm woodland for dock & annual weed control.
Possible alternatives: fluroxypyr (Starane Hi-load), 2,4-D (Depitox).

Napropamide
A residual herbicide used in farm woodlands for annual weed control.
Possible alternatives: pendimethalin (Stomp Aqua), isoxaben (Flexidor).

On the plus side, an extremely promising deer deterrent, Trico, has been introduced, and a review of commercial experience will be published in FTN in the New Year.

Pesticide options currently available for 2019

This list updates the list (compiled February 2018) to be found in the 2019 Confor diary. The approval dates are those currently published, but should be used for guidance only, as experience suggests that these are subject to change.

GRASS CONTROL - FORESTRY

Cycloxydim (eg Laser)
FSC ✓ PEFC ✓ Approved to November 2023
Safe to trees at all stages, but only active on fast growing grasses. Ineffective on typical upland grass species including Nardus, Molinia, Juncus and some fescues.

Glyphosate (Eg Roundup ProActive)
FSC ✓ PEFC ✓ Approved to June 2020
A large number of glyphosate products containing tallow amines have been phased out due to regulatory concerns. There is a strong possibility that EC Ministers will vote to withdraw the product in 2021.

Propaquizafop (Falcon)
FSC x PEFC ✓ Offlabel approval (EAMU 2016/3458 to May 2024).
Safe to trees at all stages. Approval restricted to one application at half rate (0.75l/ha), so really only of value on seedling grasses in forest nurseries and farm woodlands.

Propyzamide (eg Kerb Flo)
FSC ✓ PEFC ✓ Approved to July 2021
Winter applied residual herbicide. Not effective on coarse grasses or rushes, sedges only partially controlled.

BRACKEN CONTROL - FORESTRY

Asulam (Asulox)
FSC ✓ PEFC ✓ Emergency approval granted for 2019 use from 1 July to 31 October.
Approval conditions expected to be as 2018, so aerial use & use through tractor sprayers. Although knapsack sprayer use is approved, the requirement of 1000l/ha water volume without runoff is not attainable.

Glyphosate (eg Roundup ProActive)
FSC ✓ PEFC ✓ Approved to June 2020
Useful for spot treatment through knapsacks or pre planting on dense infestations.

HERBACIOUS WEED CONTROL - FORESTRY

Clopyralid (eg Dow Shield 400)
FSC ✓ PEFC ✓ EAMU 2012/2041.
Approved to October 2020
For the control of thistles. Will also kill clover. Generally safe to the crop.

No other herbicides now approved for herbacious weed control in forestry other than glyphosate.
A much delayed selective herbicide / scrubkiller to replace Timbrel is now expected to be approved later in 2019.

INSECTICIDES - FORESTRY

Pre-treatment for Hylobius Control in the forest nursery

Alpha - cypermethrin (Alpha 6ED)
Approved to January 2022.
Applied through the electrodyne applicator and still very effective. However, the approval of all synthetic pyrethroids is threatened by EC rulings on endocrine disrupters, so the product may be revoked prior to 2020.

Acetamiprid (Gazelle SG)
Hylobius offlabel approval EAMU 2012/1068 to September 2019
Aphid offlabel approval EAMU 2016/2653 to September 2099
Forest Nursery pre planting EAMU's 2011/1313, 2013/2418, 2016/2653
Commercial use had demonstrated that this is a very effective insecticide against the weevil. Acetamiprid belongs to the neonicotinoid group of insecticides, which is under severe political pressure due to concerns over bee health. However within this group, acetamiprid has the best bee safety profile, so may remain even if other similar insecticides are withdrawn.

Post-planting hylobius treatments

Acetamiprid (Gazelle SG)
FSC ✓* PEFC ✓ Offlabel approval to October 2019.
Best used following Alpha 6ED



MEMBER SERVICES Pesticides helpline

Pesticides helpline is a free service operated by Confor's crop protection adviser Colin Palmer on behalf of Confor members. Colin can be contacted 8am to 8pm Mondays to Fridays on 01531 633500 (leave a message if necessary) or by email to: branchline@xln.co.uk



treatments to minimise the potential for insecticide resistance. High level of operator tolerance. Two applications per year permitted.

Cypermethrin (Forester)
FSC x PEFC ✓ Approved to April 2021
Continues to be a very effective part of the control programme. Use in PEFC certified forests or non-certified forests only. Three applications per year permitted.

CATERPILLAR CONTROL FOR PINE MOTH, PINE LOOPER & PROCESSIONARY OAK MOTH etc

Diflubenzuron (Dimilin Flo).
FSC ✓* PEFC ✓ Approved to December 2021
A chitin inhibitor - prevents moulting leading to death. Control of lepidoptera only - all other insect species unaffected. One application per year. Aerial use & hand held use permitted.

Bacillus thuringiensis (Dipel DF)
FSC ✓ PEFC ✓ Offlabel approval EAMU 2016/0931 to March 2020
A biological insecticide injected by the caterpillar. No limit on the number of applications.
Control of lepidoptera only - all other insect species unaffected.

FUNGICIDES IN FORESTRY

Phlebiopsis gigantea (PG Suspension)
FSC ✓ PEFC ✓ Approved to March 2020
Biological control of fomes. Maximum shelf life of product is seven months

Urea (Urea)
FSC ✓ PEFC ✓ Used as a pesticide under a 'Basic Substance' approval.
A nitrogenous fertiliser used for the control of fomes. See Forestry Commission literature for dilution rates.

MAMMAL CONTROL

Aluminium ammonium sulphate (Sphere ASBO)
FSC ✓ PEFC ✓ Approved to December 2021
A deterrent against rabbits, hares and deer. Effectiveness relies on the build-up of 'avoid' memory in the target species. Not rainfast.

Aluminium phosphide (Talunex)
FSC x PEFC ✓ Approval to February 2022
For the control of rabbits using pellets activated by moisture. Operator certification required prior to use.

Emulsified Sheeps Fat (Trico)
FSC ✓ PEFC ✓ Approved to Feb 2023
A new introduction for deterring deer browsing & fraying. Early reports indicate that it is very effective and rainfast.

FARM WOODLAND HERBICIDES

Farm woodlands are defined as new plantings on ex arable or improved grassland fields.
All products used in forestry may be used in farm woodlands plus the following:

FOLIAR HERBICIDES

2,4-D (Depitox)
FSC x PEFC ✓ Offlabel approval EAMU 2008/2843 to December 2009
For inexpensive foliar control of thistle, buttercup, ragwort, dandelion and a number of annual weeds.

Amidosulfuron (Eagle)
FSC ✓ PEFC ✓ Offlabel approval EAMU 2014/2508 to June 2021
A sulphonyl urea foliar herbicide active on cleaver & hogweeds. Reasonably tolerated by the crop.

Carfentrazone - ethyl (Shark)
FSC ✓ PEFC ✓ Offlabel approval EAMU 2008/0551 to January 2019
A contact herbicide which dessicates annual broadleaved weeds. Avoid crop leaves or needles.

Florasulam (Boxer)
FSC ✓ PEFC ✓ Offlabel approval EAMU 2008/2826 to September 2009
A sulphonyl urea foliar herbicide active on a number of annual weeds including cleaver, plus hogweeds.

Fluazifop - p methyl (eg Fusilade Max)
FSC x PEFC ✓ Approved to December 2021
Safe to trees at all stages, but only active on fast growing grasses. Ineffective on typical upland species including Nardus, Molinia, Juncus and some fescues. Knapsack use permitted (EXCEPT in Christmas trees).

MCPA (eg Agroxone)
FSC ✓ PEFC ✓ Offlabel approval EAMU 2012/2061 to April 2021
For inexpensive foliar control of thistle, buttercup, ragwort, dandelion and a number of annual weeds. Application through hand held equipment is prohibited.

Tribenuron - methyl (Quantum SX or Thor)
FSC ✓ PEFC ✓ Offlabel EAMU 2012/2063+64 to April 2021
A sulphonyl urea herbicide with foliar activity on a range of annual weeds.

RESIDUAL HERBICIDES

Flumioxazine (Digital)
FSC ✓ PEFC ✓ Offlabel approval EAMU 2008/2844 to December 2021
A residual herbicide which inhibits the germination of a number of annual broadleaved weeds. Limited action on grasses.

Isoxaben (Flexidor)
FSC x* PEFC ✓ Approval to November 2023
Residual herbicide which inhibits the germination of a number of annual broadleaved weeds. No activity on grasses.

Pendimethalin (eg Stomp Aqua)
FSC x PEFC ✓ Offlabel approval EAMU 2009/2918 to September 2009
Residual herbicide which inhibits the germination of a number of annual broadleaved weeds with limited activity on grasses.

Notes:

- * On revised FSC list yet to be adopted.
- i. All users must now hold a PA1 plus PA2 (crop sprayer) or PA6 (knapsack sprayer) operators certificate.
- ii. A copy of the appropriate authorisation (EAMU) must be downloaded from <https://secure.pesticides.gov.uk/offlabels/search.asp> before applying any offlabel pesticide.