



Fire Danger Notice 01 of 2023
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Forest Fire Danger Rating



Condition Yellow –Moderate Fire Risk - Be Aware

Given the inherent fire risk in spring weather patterns and upland vegetation states, a Moderate Fire Risk Condition is deemed to exist in all areas where hazardous fine fuels such as dead grasses, gorse and heather are present in proximity to forests and other assets. This condition will remain the minimum default status until the end of the main peak fire season in September unless otherwise upgraded by DAFM.

Forest owners and managers are advised to check and update fire plans and other relevant contingencies such as insurance, helicopter contracts etc. All countryside users are asked to be vigilant, to report any suspicious activity to An Garda Síochána and to report any uncontrolled or unattended fires immediately to the Fire and Emergency Services via 112/999 service.

The Department of Agriculture, Food and Marine recommends that forest owners and managers should now consider the fire mitigation measures that they can put in place to help prevent loss or damage to forest resources through fire. Examples of such measures are:

- 1. Risk assessment:** Assess your property regarding fire risk and mitigation factors. Is there a risk of fire or the presence of hazardous fuel vegetation on neighbouring lands? Is there a history of land burning in the vicinity of your forest? Are access routes adequate, accessible, and clear of obstructions? Is there an existing firebreak in place and has it been adequately maintained? Existing firebreaks should be maintained by screefing or removing vegetation mechanically by excavator so that the soil is bare. Firebreaks should be at least 6 metres wide and should be maintained clear of flammable vegetation throughout the lifecycle of the plantation.
- 2. Prepare:** Updated Fire Plans should be developed for all forests, including a map showing access routes, potential control lines, assembly points for firefighting personnel and equipment and potential sources of water for firefighting. The plan should also include contact details for the emergency services, local private and Coillte foresters, neighbouring landowners, and forest owners to summon help should the need arise. Have the plan to hand throughout the fire season.

Have fire-fighting tools such as beaters and knapsack sprayers to hand, tested and ready to use. If you do not live-in reasonable proximity to your woodland a local caretaker or forest neighbour should be employed and should also have a copy of the fire plan with your details and all the above, contact numbers. Clear tracks and roads if necessary and ensure forest entrances and access routes are not blocked by parked vehicles or other obstacles, especially

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where visitors or recreational users may be present. Suitable signage to this effect should be displayed on gates or barriers.

- 3. Be Vigilant:** Forest owners should be particularly vigilant following prolonged dry spells. Less than 24 hours is sufficient to dry dead upland vegetation following rain, where suitable wind and humidity conditions exist. Cooperation between neighbouring landowners is critical to successful fire prevention. Forest owners should discuss their concerns about fire with local landowners in advance of the fire season. Cooperation with landowners wishing to carry out legal prescribed burning during the permitted season is a useful way of developing good working relationships with neighbours, as well as ensuring that operations are conducted safely. Forest owners should cooperate with fire planning and share the burden of fire patrols and vigilance.

See www.met.ie/forecasts/farming/graphs/Fire-weather-index for the latest Forest Fire Risk Condition.

- 4. Obey the Law:** It is an offence to cut, grub, burn or otherwise destroy any vegetation growing on any land not then cultivated between 1st day of March and 31st day of August in any year. Report suspicious or illegal activity to An Garda Síochána immediately. Landowners wishing to carry out prescribed burning during the legal period for doing so must notify in writing all Forest owners within one mile, and the local Garda station between 7 and 35 days in advance of the burning operation.

Additional restrictions and consent requirements may apply where these activities have the potential to damage a Special Area of Conservation (SAC), A special Protection Area (SPA) or a Natural Heritage Area. Where a landowner is uncertain about their legal obligations in these matters they should consult their local NPWS Conservation Ranger beforehand.

Landowners wishing to burn permitted farm wastes under exemption must notify the relevant Local Authority in advance by way of a completed statutory notice.

All burning operations should be notified to the Fire Service, via the control centre by telephoning 112/999 BEFORE burning commences. Landowners found burning illegally could face fines, imprisonment, and Farm Payment penalties, where applicable.

- 5. Report Fires Immediately:** If you see a fire, do not delay; report it to the Fire and Emergency Services straight away. Do not wait for somebody else to make the call. Dial 999 or 112. Give clear details as regards location, where at all possible using a national grid reference and any other useful information such as the size of the fire, wind direction, proximity to dwellings or forestry etc. You will not be billed by the fire service or local authority for making the call. Do not attempt to tackle fires alone or without adequate training, assistance, or protective equipment.

Report all losses. If your forest is damaged or destroyed, report this loss as soon as possible to the Gardai and the Forest Service. Report losses to report.fires@agriculture.gov.ie or in writing to Department of Agriculture, Food and the Marine, Johnstown Castle Estate, Co. Wexford. Further information on Fire management and wildfire protection is available at <https://www.gov.ie/en/publication/01773-fire-management/>

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Forest Fire Risk Warning System 2023

Fire Danger Rating System

The current operational fire danger rating system is based on the Canadian Fire Weather Index (FWI) system adapted to Irish conditions by Met Eireann. It is important to note that under Irish Conditions, FWI values generally underrate risk. The Fine Fuel Moisture Code Component (FFMC) of the FWI has been found by experience to have the strongest correlation with actual fire risk under Irish conditions. FFMC is combined with Initial Spread Index Rating which indicates the likely ease of spread of fire. As FFMC, ISI and risk rating level increases, there is a corresponding increase in fuel ignition potential and consequent fire behaviour, intensity and spread rates.

Basic fire risk conditions will be further compounded by fuel quantity and arrangement and local topographical and landscape factors. Human factors that may influence ignitions activity are also considered in the final fire danger rating output.

Fire Danger Notices

Forest Fire Danger Notices are issued by DAFM during the main wildfire risk season from March through to September. These notices provide forest owners and land managers with advance warning of high fire risk weather conditions and permit appropriate readiness measures to be taken in advance of fire outbreaks.

Forest Fire Danger Notices are based on daily Met Eireann Fire Weather Index (FWI), European Forest Fire Information System (EFFIS) and ECMWF outputs, with additional processing and analysis by DAFM. Like other forms of weather warnings, they are colour coded. Increasing levels of preparation and vigilance are required as the risk levels scale from Green through to Red.

Like all forms of forecasting, Forest Fire Risk warnings are indicative, and conditions on the ground at local level may differ significantly from those forecasted. The Department of Agriculture, Food and The Marine will not be liable for loss or damages arising from the issue or omission of Fire Danger Notifications.

Be Fire-Wise

To minimise exposure to risk from wildfire, all forest owners, managers, and other property owners should carry out hazard/risk assessments for their properties and take adequate measures to protect their properties from fire during the risk period. Such measures may include the removal or reduction of dangerous vegetation in proximity to structures and critical assets and may extend to the undertaking of fire patrols and pre-positioning of fire suppression resources by property managers.

Further information is available at <https://www.gov.ie/en/publication/d276b-fire-safety/>

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Forest Fire Danger Ratings are presented in four categories:

1. **Condition Green - Low Fire Risk**

FFMC Range 0-60

OPEN SEASON

Condition Green indicates that hazard status is favourable, ignition risk is low and where vegetation can be ignited, there is a low rate of fire spread and wildfire risk. Condition Green is a favoured status for prescribed burning operations, especially protective burning near forestry and other property. Ideally, hazardous vegetation in proximity to assets should be removed/ treated under these conditions. Risk assessments, Fire Plans and relevant contact lists should be developed for all plantations prior to the onset of higher risk conditions.



2. **Condition Yellow – Moderate Fire Risk**

FFMC RANGE 61-80

ISI < 3

Closed Season

Condition Yellow is the default condition during the peak wildfire risk period from March to June. Forest managers and owners, farmers and people concerned upland management should be aware of the inherent fire risk during this period. Under Condition Yellow risk conditions upland vegetation can be expected to burn steadily, with a moderate flame length and predictable rate of spread, however wind conditions and other factors can cause this to change. A Condition Yellow Notice is typically a signal to landowners to prepare for the oncoming fire season. Fire plans should be completed and relevant contact lists, aviation support contracts etc., updated and made ready prior to this point. Rural residents should also be aware of the risks posed to property and human safety by wildfire and take action to reduce and remove hazardous vegetation in proximity to homes, fuel storage areas, and other vulnerable assets.



3. **Condition Orange - High Fire Risk**

FFMC RANGE 70-80

ISI 3-5

Condition Orange will generally derive from extended periods of low rainfall, moderate relative humidity and light to moderate wind conditions which can significantly increase the risk of wildfire initiation and spread. Westerly Atlantic high-pressure systems and accompanying calm conditions or light Westerly/South Westerly winds regularly give rise to these conditions and create a steady drying environment for fine fuels such as grasses and heather, particularly where vegetation is dead following the winter months. Orange level warnings may also derive from expected patterns of human activity that affect fire risk such as expected traditional burning patterns by landowners or bank holiday weekends, school holidays etc. that may bring high levels of recreational visitors onto risk lands.



The issue of a Condition Orange warning implies that all recipients in affected areas should prepare for imminent outbreaks of fire. Forest managers, landowners and rural residents should be satisfied that all preparations are made, and that access routes and forest road networks are clear and fit for purpose. Where available, fire suppression personnel and forest managers should be notified and instructed to prepare for the likelihood of fire occurrence. Suitable maps, contact lists, fire plans, and equipment and relevant PPE should be checked and made ready. Fire patrols may be warranted under such circumstances in known fire hotspots.

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4. **Condition Red – Extreme Fire Risk**

FFMC >80

ISI > 6



Under extreme Fire Risk Conditions any ignition source in hazardous fuels will give rise to rapid and unpredictable wildfire development and spread. Where such conditions are preceded by drought in upland situations fire can be expected to cover extensive areas and pose extreme difficulties to suppression efforts. This will likely give rise to Major Emergency Management (MEMs) response scenarios.

Typically, extreme conditions derive from Easterly Northern European High-Pressure Systems, where air circulates in a clockwise direction over the Northern European and Central European land masses. This circulation across the land mass causes the air to shed moisture and become very dry, which in turn dries out dead vegetation on the ground very rapidly. This in turn induces high levels of combustibility, particularly in fine fuels. Where the edges of these Easterly systems rest over UK/Ireland such cold dry air will be accompanied by strong and often cold, low humidity winds from the South East or North East that will support further drying and rapid fire propagation to produce high intensity fire events where fuels and topography permit.

The issue of Condition Red Extreme fire risk warnings should be a comparatively rare event and implies that recipients should take immediate action to protect resources and property. Such action may involve the mobilisation and prepositioning of resources such as water tankers, machinery, personnel, and contract aviation support in high-risk areas.

Preliminary notification of Defence Forces Aid to Civil Power/ Aid to Civil Authority requests by relevant authorities may also be warranted where extreme conditions are deemed to exist, and where emergency response requirements are likely to exceed the capabilities of civil agencies.

Even in the absence of a formal warning, under such conditions forest owners/managers, other land managers, landowners and local authorities should implement fire patrols to exclude all fire activity from the landscape and enforce relevant fire protection legislation. Rural residents should also implement a high degree of vigilance and check on elderly or other vulnerable neighbours and assist with preparation and evacuation if this is deemed necessary by the Local Authorities. Further information on Fire management and wildfire protection is available at:

<https://www.gov.ie/en/publication/01773-fire-management/>



Fire Suppression Tactics per Fire Risk Condition

Fire Danger Rating Condition	Expected Flame Height (M)	Expected Fire Intensity (KW)	Probable Fuel Conditions	Recommended Suppression Tactics
LOW FFMC 0-60	<0.5	0-50	Partially dried Upland Vegetation over wet soil/litter layers	Fires Generally Self-Extinguish Non-Intervention/ Containment and Monitoring
MODERATE FFMC >50 ISI 0-3	0.5-1.5	50-500	Dried fine Upland Vegetation over wet soil/litter layers	Direct Attack using Hand Tools and Water Based Systems. Non-Intervention/ Containment and Monitoring.
HIGH FFMC >70 ISI 3-5	1.5-3.0	500-2000	Dried Vegetation over drying Litter and Soil layers. Dead Shrub Fuels and grass Tussocks available to burn.	Direct Attack Strenuous to Difficult Water-based Attack Aerial Attack Tactical Fire use*
EXTREME FFMC >80 ISI >6 Preceding Dry Conditions Easterly High-Pressure Feature	3.0-10.0	2000-4000	All fuel types available to burn Runaway fires with extreme fire behaviour and spread rates Crew safety impacts Civil Protection /Urban interface impacts likely	Offensive actions difficult Defensive posture may be warranted Indirect attack with ploughed/flailed fire breaks Water-based Attack Aerial Attack Tactical Fire use*

*Use of Tactical fire for suppression should only be conducted by trained personnel, with the approval of relevant Incident Commander.