



Husqvarna®

Firefighting in Zimbabwe: A Guide for Farmers and Foresters



Compiled by Cutting Edge
159 Citroen Road, Msasa, Harare
+263 8677 008 685
cuttingedge.co.zw

with assistance from Sustainable Afforestation Association

Table of Contents

Introduction	Page 2
Fire Break Construction	Page 3
Firefighting Techniques and Tools	Page 4
Post Fire Protocols	Page 6
Fire Prevention and Preparedness	Page 6
Resources and Equipment	Page 7
Conclusion	Page 7
Disclaimer and Acknowledgement	Page 8

Introduction

Fire is a natural part of Zimbabwe's ecosystem. However, uncontrolled wildfires can be devastating, causing immense damage to our environment, wildlife, and livelihoods. This guide equips farmers and foresters with the knowledge and techniques to create fire breaks, fight small fires safely, and promote responsible land management practices to minimise fire risks.

The Cost of Fire

Uncontrolled wildfires have a severe impact on Zimbabwe. They can:

- Destroy valuable forests and grasslands, impacting biodiversity and habitat loss.
- Threaten lives, property, and infrastructure.
- Erode precious topsoil, reducing agricultural productivity.
- Contribute to air pollution, impacting human health.

Initial preparation for fires

1. Know where your water sources are and clear the routes to dams, rivers and boreholes.
2. Service and update your firefighting kit to ensure they are in working order.
3. Train your staff on reacting to and fighting fires quickly. Establish clear lines of communication and appoint a fire chief as the team coordinator.
4. Assess your prevailing winds and prepare your firebreaks on a cool, calm day.
5. Start on your northern and eastern boundaries. Use a blower to direct controlled burns and to remove flammable debris from the base of trees.
6. Fill your firefighters with water and have all your equipment on standby.

Fire Breaks: Your First Line of Defense

Fire breaks are strips of cleared land that act as barriers to slow or stop the spread of wildfires. Creating and maintaining fire breaks is crucial for protecting your land and the surrounding environment. Fire breaks should be completed by 31 May every year.



Part 1: Fire Break Construction

1.1 How to Create a Proper Fire Break in Grasslands:

The width and construction of your fire break will depend on the type of grass and fire risk in your area. Here's a general guideline:

- **Tools and Equipment:**
 - Brushcutters or slashers (adhere to safety regulations)
 - Rakes and shovels
 - Herbicides (**Important:** Always follow label instructions and consult agricultural authorities for proper herbicide use)
- **Steps:**
 - Clear a strip of land 10 to 30 metres wide, depending on local regulations and fire risk. Check with your local council or forestry department for specific guidelines.
 - Remove all flammable materials like dry grass, leaves, and branches.
 - Create a smooth, mineral soil surface to act as a fire barrier.
 - Reduce the amount of flammable materials within 15 metres of your firebreaks by cutting dry grass and clearing dead wood.
- **Maintenance:**
 - Regularly clear regrowth of vegetation to maintain the fire break's effectiveness.
 - Consider prescribed burns (always with approval from forestry authorities, where necessary) to control flammable material buildup outside the firebreak.

1.2 How to Create a Proper Fire Break in Forests:

Forest fire breaks require a different approach compared to grasslands. Here's what to consider:

- **Considerations:**
 - Minimise tree removal to maintain the forest ecosystem.
 - Focus on clearing flammable undergrowth like leaves, branches, and dead trees.
- **Techniques:**
 - Manual clearing with chainsaws and brushcutters (ensure proper operator training and safety gear).
 - Consider using controlled burns under the supervision of forestry experts to create fire breaks in consultation with the forestry department.
- **Maintaining Forest Fire Breaks:**
 - Regularly remove any hazardous materials like fallen branches or accumulated debris.
 - Implement measures to minimise soil erosion within the fire break, such as creating water bars or planting appropriate vegetation.

Part 2: Firefighting Techniques and Tools

2.1 Basic Equipment for Firefighting:

Being prepared is essential. Here is some essential firefighting equipment:

- **Personal Protective Equipment (PPE):**
 - Fire retardant clothing (overall trousers, long-sleeved shirt)
 - Boots with good ankle support
 - Gloves
 - Safety glasses or a face shield
- **Hand Tools:**
 - Blowers for controlling the direction of flames or extinguishing them completely
 - Fire cans for portable water on your person
 - Firefighters for portable water in a pick-up truck
 - Beaters (can be flappers made from wet hessian sacks or tree branches)
 - Shovels for creating fire breaks or digging containment lines
 - Rakes for clearing debris



Husqvarna 578BTF Blower



Fire can



Hunter Firefighter



Hunter Semi-Firefighter

2.2 How to Fight a Grass Fire:

Remember: Only attempt to fight a small, controlled fire if it's safe to do so. Here are some safety tips:

- **Safe Approach:**
 - Never approach a large or uncontrolled fire.
 - Always work with others and have a clear escape route planned.
 - Alert nearby communities, the local fire brigade and forestry department immediately.
- **Fire Suppression Methods:**
 - Use blowers to redirect flames, even blowing them back on themselves. They can also be used to extinguish small grass fires by directing a jet of air at the base of the flames.
 - Use firefighters set to a broad spray (rather than a focused point) to sap the heat from the flames.
 - Use beaters to extinguish flames by hitting the burning edge in a controlled manner.
 - Create fire breaks using shovels to isolate the fire.
 - If safe and available, use knapsack sprayers with water to dampen the burning area.
 - Mopping up: Use fire cans to direct a parcel of water onto any remaining embers or cow pats to avoid reignition.

2.3 Considerations for Forest Fires:

Forest fires are particularly dangerous due to changing wind patterns and limited access. Here's what to remember:

- **Forest fires require professional intervention.** Do not attempt to fight a large forest fire on your own.
- **Follow instructions from fire authorities.** They will assess the situation and deploy appropriate resources.
- **If safe to do so, help control smaller forest fires** under the guidance of fire professionals.



Part 3: Post-Fire Protocols

The following steps should be followed after a fire:

1. Once the fire has been brought under control, a thorough mopping exercise should be conducted to ensure no visible combustion remains and the area is safe from any flare-ups.
2. An investigation into the source and cause of the fire should be undertaken.
3. The local police and the Environmental Management Agency should be notified of any fire within 48 hours.
4. All tools and equipment should be checked for any damages before being returned to their allocated space.
5. A fire report should be compiled within 48 hours.

Part 4: Fire Prevention and Preparedness

4.1 Planning for Fire Season:

- Develop a plan that identifies potential fire risks on your property.
- Establish clear evacuation routes for yourself, your family, and livestock.
- Maintain fire breaks and access roads to ensure quick response and escape routes.
- Educate your family and workers about fire safety protocols and responsible land management practices.

4.2 Responsible Land Management Practices:

By adopting responsible practices, you can significantly reduce fire risks on your land:

- **Controlled Burns:**
 - Consider controlled burns (always with prior approval from the forestry department) as a tool to manage flammable material buildup outside fire breaks.
 - Conduct controlled burns only under safe weather conditions and with the guidance of a qualified professional.
- **Waste Disposal:**
 - Implement proper waste disposal methods to minimise the accumulation of flammable materials like paper, plastic, and leftover crops.
 - Create designated compost heaps for organic waste and dispose of inorganic waste responsibly.
- **Community Education:**
 - Collaborate with your local community to raise awareness about fire safety and responsible land management practices.
 - Encourage neighbours to create fire breaks around their properties to create a network of fire barriers.

Part 5: Resources and Equipment

5.1 Firefighting Equipment Suppliers in Zimbabwe:

Having reliable firefighting equipment readily available is crucial. Consider reputable suppliers in your area that offer:

- Fire retardant clothing and personal protective equipment (PPE)
- Firefighter tanks for pickups
- Hand tools like blowers, fire cans, beaters, shovels, and rakes
- Knapsack sprayers (ensure they are suitable for water use)

5.2 Contact Information for Local Fire Services and Forestry Department:

- Keep the contact information for your local fire brigade, forestry department and community emergency groups readily available in case of an emergency.
- These authorities can provide valuable resources, guidance, and support in case of a fire.

5.3 Additional Resources for Fire Safety Information:

- The Sustainable Afforestation Association (SAA) in Zimbabwe offers valuable resources on fire safety and forest management. Explore their website or contact them for downloadable resources: +263 (242) 665 499.
- The Forestry Commission of Zimbabwe also provides information and guidance on fire safety and regulations: +263 (242) 498 436.
- Cutting Edge specialises in firefighting machinery and tools for agriculture. You can contact them at +2638677008685 or email sales@cuttingedge.co.zw.

Conclusion

Fire prevention and preparedness are critical for protecting our precious environment and livelihoods. By implementing the strategies outlined in this guide, you can play a vital role in minimising fire risks on your land and working collaboratively to safeguard Zimbabwe's natural resources. Remember:

- Take responsibility for fire prevention on your property.
- Work with your community to create a network of fire breaks and promote responsible land management practices.
- Be prepared to respond to small fires safely and know when to call for professional help.

Together, we can prevent devastating wildfires and protect Zimbabwe's beautiful landscapes for generations to come.

Disclaimer:

The information provided in this guide is for informational purposes only and should not be taken as a substitute for professional training or advice. Always consult with local authorities for the latest fire regulations and fire safety protocols in your area.

We'd like to thank the Sustainable Afforestation Association (SAA) for providing vital information for this guide. Phone them on +263 (242) 665 499 for sustainable plantation advice.