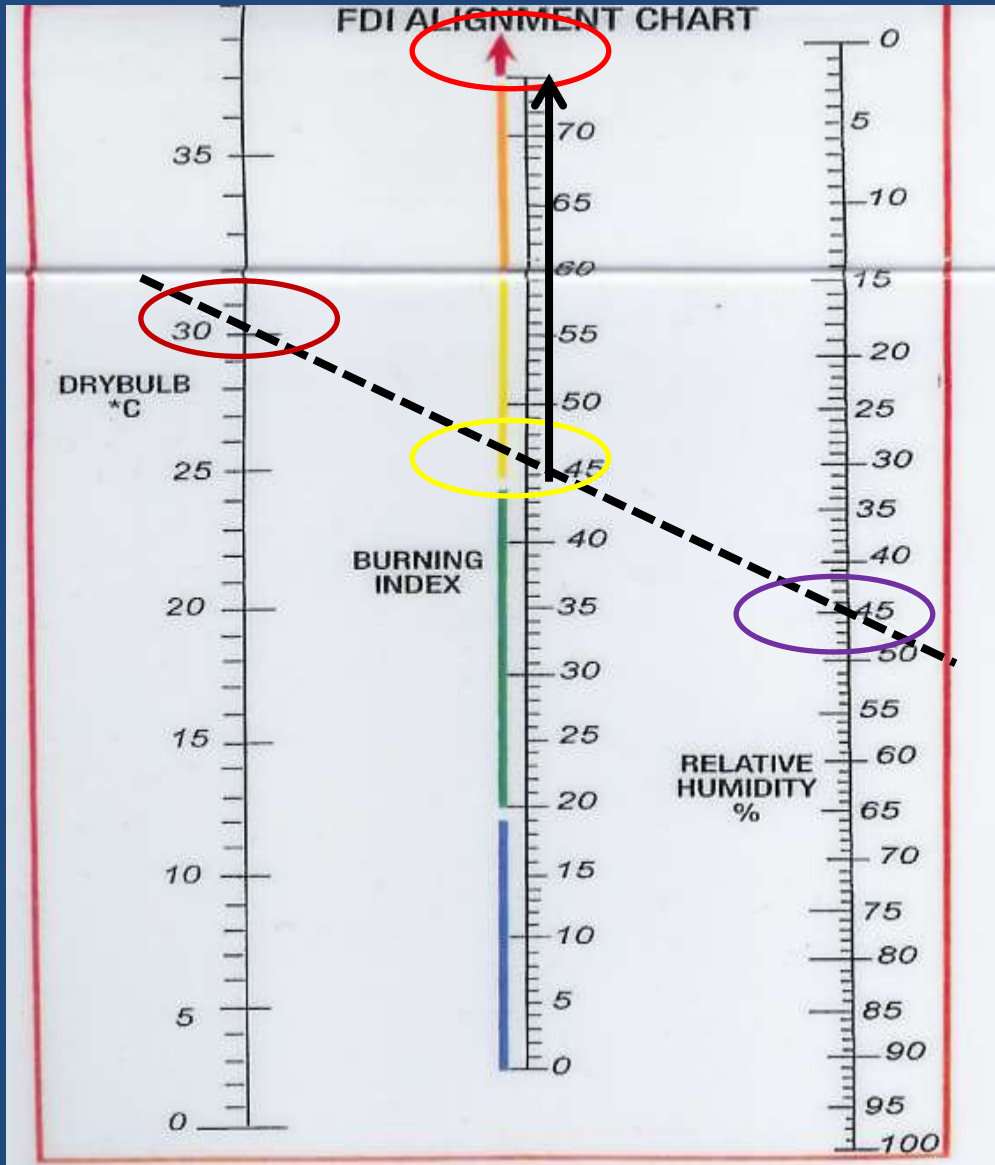


**If you are properly
prepared, you
should have no
reason to fear a
veldfire**

FIRE DANGER INDEX

Lowveld FDI Description	Colour	Category	Lowveld FDI Precaution
SAFE	BLUE	0 - 20	Low fire hazard. Controlled burn operations can normally be executed with a reasonable degree of safety
MODERATE	GREEN	21 - 45	Although controlled burning operations can be executed without crating a fire hazard, care must be taken when burning on exposed, dry slopes. Keep constant watch for unexpected wind speed and direction changes
DANGEROUS	YELLOW	46 - 60	Controlled burning not recommended when fire danger index exceeds 45. Aircraft should be called in at early stages of a fire.
VERY DANGEROUS	ORANGE	61 - 75	No controlled burning of any nature should take place. Careful note should be taken of any sign of smoke anywhere, especially on the upwind side of any plantation. Any fire should be attacked with maximum force at hand, including all aircraft at the time.
EXTREMELY DANGEROUS	RED	75 <	All personnel and equipment should be removed from the field. Fire teams, labour and equipment are to be placed on full stand-by. At first sign of smoke, every possible measure should be taken in order to bring the fire under control in the shortest possible time. All available aircraft are to be called for without delay.

FDI – Burning Index



Temperature – Relative Humidity
 30° C ----- 45 %

Burning Index 47 = YELLOW

PLUS wind speed
 40 km/h = 30 points

Wind-Speed	Korreksie-Faktor	Wind-Speed	Korreksie-Faktor	Wind-Speed	Korreksie-Faktor	Wind-Speed	Korreksie-Faktor
0	0	12	10	24	15	36	26
1	0	13	10	25	16	37	29
2	4	14	10	26	19	38	30
3	5	15	10	27	20	39	30
4	5	16	11	28	20	40	30
5	6	17	14	29	20	41	31
6	9	18	15	30	20	42	34
7	10	19	15	31	20	43	35
8	10	20	15	32	21	44	35
9	10	21	15	33	24	45	36
10	10	22	15	34	25	46	40
11	10	23	15	35	25	47	40

47 + 30 = 77 = RED

A Description of the five proposed fire danger rating categories (Blue to Red), and examples of the fire behaviour, recommended control measures, actions and restrictions for each.

	BLUE	GREEN	YELLOW	ORANGE	RED
FDR RATING	Insignificant	Low	Moderate	High	Extremely high
FIRE BEHAVIOUR	Fires are not likely to start. If they start, they are likely to go out without aid from suppression forces. There is little flaming combustion. Flame lengths < 0.5 m and spread rates < 2 m/minute.	Fires will start but will spread slowly. Flame lengths typically < 1 m, and spread rates < 5 m/minute.	Fires fairly readily ignited and spread unaided, burning in the surface layers below trees. Flame lengths between 1 and 2 m, and spread rates between 5 and 25 m/minute, depending on fuel type.	Fires readily ignited and spread unaided, with local crowning and short-range spotting. Flame lengths between 2 and 5 m, and spread rates between 25 and 35 m/minute. Spotting occurs, increasing the rate of spread.	Any ignition source likely to initiate a fire. Fires will spread in the crowns of trees as well as in surface layers, and long-range spotting will occur. Spread rates can exceed 60 m/minute and flame lengths will be in the order of 5 – 15 m or more. Wide-spread spotting, greatly increases the rate of spread.
FIRE CONTROL	No control necessary.	Fires can be approached on foot. Suppression is readily achieved by direct manual attack methods.	Fires not readily approachable on foot for more than very short periods. Best forms of control should combine water tankers and backfiring from prepared lines.	Fires cannot be approached at all. Backburning, combined with aerial water-bombing are the only effective ways to combat fires. Equipment such as water tankers should concentrate efforts on the protection of houses.	Any form of fire control not likely to be effective until weather changes. Backburning dangerous and best avoided.

BASIC PPE

- Leather boots (working or hiking boots)
- 100% cotton long trousers (or jeans)
- 100% cotton long sleeve shirt
- Goggles
- Leather gloves
- 100% cotton face scarf
- 100% cotton or *Nomex* balaclava

Incident Command System

Incident Commander
(IC)

Media

Operations

Planning

Logistics

Finance

Aerial
OPS

Ground
OPS

Div Sups

Div Sups

- Overberg Fire Dept.
- FPA members
- WoF
- Contractors
- Volunteers

- Veld age maps
- Property maps
- Landowner details
- Weather info
- Radio channels
- Provide maps

- Food
- Water
- Medical
- Fuels
- Equipment
- Repairs

PROACTIVE MEASURES

Firebreaks:

- It is a legal requirement.
- They can assist in stopping a flanking or backing fire.
- It is unlikely to stop an advancing fire.
- A line from where back-burning can take place.
- Allows access for crew and vehicles.
- Allows fuel reduction burning to take place.
- Should be part of a strategic firebreak system.

BASIC STRUCTURE PROTECTION

- Clear a defensible space around buildings sufficient to prevent conductive and radiant fire spread.
- Ensure safe access to structures.
- Keep roof and gutters clear of leaves etc. during the fire season.
- Keep combustible items (garden furniture, firewood, jungle-gyms, wooden sheds, etc.) away from buildings.
- Move gas bottles to a safe location during fires.
- Ensure firefighting equipment (garden hoses, ladders, fire beaters, etc.) are on hand during fire season.
- Keep PPE ready for use.
- Wet wooden decks and structures when embers start to fall.
- Keep curtains open.
- Close fire-proof shutters if in place.
- Close all windows, doors, vents and access points.

ON HIGH FIRE RISK DAYS AND DURING A FIRE

- Prepare a 'grab-bag' (ID, legal documents, external hard drives, valuables, etc.) on high fire risk days.
- Keep a regular look out for smoke.
- Ensure that your cell phone and radio is charged.
- Listen for news alerts.
- Listen to the community radio system.
- Determine if possible who will be filling ICS positions.
- Keep PPE and accessories (food, water, etc.) ready and be prepared to respond or assist with firefighting if you are suitably trained and equipped.
- Be prepared to evacuate early the elderly, people not going to be assisting with firefighting and pets.

DON'T LEAVE THINGS TO THE LAST MINUTE

PROACTIVE MEASURES

- Reduce fire risks on high risk days (Stop the Sparks).
- Be prepared to respond quickly on high fire risk days.
- Increase fire behaviour understanding by attending controlled burning operations even if for just a few hours.
- Prepare areas around infrastructure.
- Obtain and maintain firefighting equipment for your property.
- Obtain basic PPE.
- Ensure that an effective communications system is in place.
- Explore a Strategic Firebreak System for your area with the GoFPA and Fire Department.
- Support and assist with strategic firebreak and fuel reduction management.
- Identify members who can assist with initial ICS.

PROACTIVE MEASURES

Landowners who fail to take proactive measures:

- Risk of insurance claim rejection due to non-compliance with the NVFFA.
- Risk of losing in litigation matters due to non-compliance with the NVFFA.
- Possibility of firefighting management not being willing to undertake firefighting actions due to the risk of loss of life and/loss of equipment.
- Increased risk of loss to property and assets.
- Homeowners are unlikely to have time to implement measures once the fire has started.

REACTIVE MEASURES

- Contact the Fire Department immediately and respond with all resources for all fires.
- Implement the ICS asap.
- Only implement back-burning if there are sufficient resources to manage the fire and a suitably experienced person is present to implement it.
- THINK AHEAD of what the fire could do and implement plans before the fire gets there.
- Ensure that extinguished sections of the fire are mopped up and monitored to prevent flare-ups (previous Malgas fire).

BASIC FIRELINE SAFETY

- No-one should be assisting with active firefighting unless they have basic PPE and basic training.
- Remain aware of the situation at all times (weather, flare-ups, fuel, topography, firefighting strategy, etc.).
- Remain in contact and in control of your crew and with Management at all times.
- Use Look-outs where necessary.
- Ensure that you have a good radio communication system.
- Ensure that you have a plan and that everyone knows what it is.
- Ensure that there is ALWAYS an escape route to a SAFE ZONE.

VELD FIRES: SUCCESS STORY OF OTJIWARONGO TEAM

Received: 13 Aug 2021

The joint fire team of the Otjiwarongo Neighbourhood Watch and Farmers Association (northern Namibia) have already fought 45 veld fires on farms in the northern commercial agricultural area this year. The quoted success was highlighted by four cornerstones:

- 1. Communication is indispensable and for this two-way radios and repeaters are important.**
- 2. Leadership requires one person to take charge at a fire scene.**
- 3. The correct firefighting equipment must be available such as fire beaters, water containers, etc.**
- 4. Aftercare is of utmost importance after a fire has been extinguished, as fires often flare up again when the wind picks up.**

Among the causes were lawn mowers, graders, grinders, trains, charcoal burning and arson.