

Stubble burning requires care

FIRE BREAK



Advice from Mike Grant
Southern Rural Fire Authority
Principal Rural Fire Officer

VERY soon rural fire authorities will be getting many requests for fire permits to burn crop stubble residue, so it is timely to consider the issues surrounding burning of this material.

I recently came across an article that I had cut from the July 21, 2000 issue of *Southern Rural Life* to do with stubble burns.

The article titled "Rural fires from stubble burns are unnecessary" referred to comments by the manager for the centre for International No-Tillage Research and Engineering.

He said the problem of rural fires from crop stubble getting out of hand was an unnecessary one. Burning crop residues has been banned in some countries and largely voluntarily eliminated in many others.

He also said burning off was both environmentally harmful and a waste of time.

Apart from the obvious problems of air quality and damage to other crops and property, residues are most valuable when left on the surface, as they contain many dollars worth of nutrients.

He said this was just one of the many good reasons to adopt no-tillage farming practices.

As rural fire authorities we acknowledge burning is a legitimate land management tool and that our role is to provide advice on safe burning practices if someone wants to use burning as a tool.

Where we are aware of alternatives to burning we should also make this information available for consideration by landowners.

In my article last July (*SRL* July 21, page 30) I talked about burn-off plans

being essential in relation to carrying out high-country burns.

I must stress that burn planning is essential for any fire that is lit and none more so than for stubble burns.

On a prescribed burn, the fire environment (fuel, weather and topography) together with the ignition pattern, govern fire behaviour.

Stubble is what we class as a "fine fuel", meaning it will ignite rapidly and is also consumed rapidly when dry.

It reacts quickly to weather changes, particularly wind speed.

Consequently, stubble fires can burn quickly and not suffer the residual after-burning that is associated with many other medium and heavy fuels.

While this is good when things are going right, it also means that when something goes wrong it happens quickly, so a good plan is essential.

Last year I witnessed a farmer trying to burn a paddock of stubble by riding round and round the paddock on an ATV towing a flaming tyre to light up the stubble.

The majority of the stubble had been baled, so the fire was not carrying well but he was managing to chew

a fair amount of smoke.

He had another paddock to burn so I made a suggestion that he use a strip lighting method rather than lighting the outside as he had just done.

Burning this way would keep him out of the smoke and ensure a more even burn was achieved.

I was no more than 10 minutes down the road when he rang and said it was all done and everything had burned really well.

The following describes how to go about carrying out a simple strip burn:

1. Burn from the appropriate downwind firebreak (minimum of 4m turned over to bare earth for all boundaries) using a backing fire, to secure the firebreak and increase its effective width.

2. Once this strip of fire has burned back some distance, light further strips progressively upwind or down slope (as shown on diagram).

3. Continue the process until the whole block has been lit.

4. Where burn is on a slope, light from the top (upslope) and work down.

□ Mike Grant writes this column on behalf of Otago/Southland Regional Rural Fire Committee.

STRIP BURNING DIAGRAM

