LEADA

Stubble Guidelines

Summary of stubble management strategies applicable to farming systems on the Lower Eyre Peninsula

Local Management Guideline for the GRDC
Stubble Initiative Project (LEA0002)

The following table summarises stubble management options over harvest and the summer period on the lower Eyre Peninsula. It also provides commentary on potential costs and benefits, and resultant impacts.
$ Negative impact & $ Positive Impact (the more $ signs the greater the impact)

Stubble treatments at and after Harvest	Stubble treatments over Summer		Pests	Herbicides	Seeding	Comments
	Early	Late				
Tall		Paddock Burn, Requirement For Labour During Burn	Burning likely to reduce snails, RLEM, earwigs etc. and reduce need for pesticides	Resultant ash can bind herbicides	Few issues at seeding, however drying seed bed may irreversibly limit seedling growth	The cheapest short-term option but not generally sustainable long term as nutrients and soil organic carbon will likely be reduced and soils will be prone to erosion
$		$$	$	$	$	
Low & Spread	None	None	10-15 kg/ha snail bait common on non-acid soils, increased use of pesticide sprays at seeding	Reduced efficacy in insoluble, volatile pre-emergent herbicides such as trifluralin	Few problems for tines provided straw is mulched and spread evenly at harvest. May be issues with disc seeders in wet straw. Emergence and early crop vigour can be impacted	Standard for LEP. High cost at harvest due to grain loss and decreased speed. Increased dependency on pesticides for weed and pest control, with resistance likelihood increased also
$$$	$	$	$$	$$	$$	
Low & Windrow Burn		Windrow Burn in Autumn	Likely to reduce snail numbers, as well as reducing habitat for other pests	Will improve ground contact of pre-emergent herbicides and reduce resistance selection pressure overall	Likely to improve seeding operations but may leave seedbed exposed to moisture loss in dry autumns	Should reduce fuel use at harvest without mulcher/spreader running but won't reduce harvest speed as cutter bar will have to be set low. Weed control dependent on timing of harvest
$$		$$	$	$	$$	

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Stubble treatments at and after Harvest	Stubble treatments over Summer		Pests	Herbicides	Seeding	Comments
	Early	Late				
Low & Chaff Cart Burn		Chaff Dump Burn	Will reduce the overall habitat for pests and disease somewhat	May improve herbicide application through better ground contact and HWSC will delay resistance pressure	Provided straw is diverted to a chopper, the reduction in chaff is likely to reduce clumps at seeding	Chaff carts vary and require a moderate capital investment however their weed control and chaff reduction benefits are well-documented
$$$		$$	$	$	$	
Low & Spread	Roller		Added benefit in reducing snail habitat and making baits more accessible	May improve ground contact for pre-emergent herbicides	Provided rolling is done on short dry straw, it should improve seeding operations	The key with rolling is to ensure that what you are rolling is already at or below the threshold of your seeder's stubble handling
$$	$$		$	$	$	
Tall	Cable		Will reduce snail habitat and possibly increase heat-induced snail mortality	Could worsen ground contact of pre-emergent herbicides	Could substantially worsen seeding operations by laying straw across tines	Cabling is likely to be predominately used for snail control, however the value is limited on LEP where temperatures are rarely high
$	$		$	$$	$$	
Tall	None	None	Habitat for pests and disease is likely to increase over time	Likely to limit use of cheap pre-emergent chemistry	May impede even disc seeders during cool, wet conditions	This option is predominately matched with disc seeders only and may still present problems
$	$	$	$$	$$	$$	
Tall	Slash/ Cut		Any pest benefits likely to depend on timing (hot)	May worsen ground contact and limit use of insoluble pre-emergent herbicides	Will improve seeding provided slashed stubble is less than 200 mm long	Although time consuming and expensive, slashing or cutting may be preferable to harvest delays
$	$$		$$	$$	$	